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#### CONTENTS: Vol. LXXII., No. 17 (Series No. 1474).

	PAGE		PAGE
Colonial Representatives in London:		Corner for Students .....	621
Canada (Lord Strathcona) .....	614	Correspondence .....	653
British Columbia (Hon. J. H. Turner) .....	615	Deaths .....	632
Australia (Captain R. M. Collins) .....	616	Deeds of Arrangement ...	631
South Australia (Hon. J. G. Jenkins) .....	616	Diary Competition .....	639
Tasmania (Hon. A. Dobson) .....	617	Editorial Comments:	
Victoria (Hon. J. W. Taverner) .....	617	Our Colonies .....	636
Western Australia (Hon. C. H. Rason) .....	618	Spirituos Medicines ..	637
New Zealand (Hon. W. P. Reeves) .....	618	U.S. Trade .....	637
Cape Colony (Sir S. French) .....	619	Notes .....	638
Natal (Sir W. Arbuckle) .....	619	English News .....	623
Transvaal (Sir R. Solomon) .....	620	French News .....	626
A Colonial Pharmacy ...	620	Gazette .....	631
Advertising, Illustration in .....	646	India and the East .....	627
Association Affairs .....	640	India Trade .....	653
At the Counter .....	648	Information Wanted ...	640
Australasian News .....	627	Irish News .....	626
Bankruptcy Report .....	631	Japanese Army Medicines .....	645
Bengal Chemicals .....	656	Legal Reports .....	630
Birth .....	632	Marriages .....	632
Books, New .....	645	Medical Gleanings .....	643
Business Changes .....	633	New Companies and Company News .....	631
Business Hints .....	646	Observations and Reflections .....	635
Canadian News .....	625	Personalities .....	648
Chemists' Windows .....	656	Pharmaceutical Society of Great Britain:	
Colonial and Foreign News .....	629	Examination Results ..	639
Coming Events ... <i>Col. Supp.</i>		Poisonings, Week's .....	634
Commercial Notes .....	652	Practical Notes .....	647
Contracts .....	630	Prescription Problem ...	634
		Refrigeration, by an Engineering Expert .....	641
		Scientific Progress .....	647
		Scotch News .....	625
		South African News .....	628
		South African Plants ...	645
		Trade-marks Applied for	645
		Trade Notes .....	633
		Trade Report .....	649
		Welsh News .....	625

#### THE NEW WORLD ISSUE

of THE CHEMIST AND DRUGGIST will be published on May 23. It will circulate in Canada, the United States, the British West Indies, and South America. This preliminary note is to invite business houses interested to write to the publisher for particulars.

### Summary.

The subjoined paragraphs give the gist of the more important matters in this issue, with the object of showing at a glance what has happened during the week. See also "Contents" in the first column.

THIS being our Colonial Issue the place of honour in the literary pages is given to notes of conversations with Colonial representatives in London, beginning on p. 614.

A LIST of the parts covered is given in the Contents, but here we may say that the objects of the notes are to show (1) the duties of the representatives, (2) the volume of trade done, and (3) the conditions upon which chemists in the home-land are admitted to practise.

ONE OF THE NEW RHODES SCHOLARS is the son of a Victorian chemist (p. 627).

A SULPHUR AND SODA DIP is found to be most effective in Orange River Colony for eradicating sheep-scab (p. 628).

COGENT REMARKS in regard to the use of illustrations in advertisements are given in the article beginning on p. 646.

THE NAMES of those who passed the Minor and Major Pharmaceutical examinations in London this month are given on p. 639.

THE LASIOPHONS OF SOUTH AFRICA are used in native medicine, and are figured and described by Mr. G. E. Oliver on p. 645.

THE TERMS of the Proprietary Medicine Bill recently introduced into the Canadian House of Commons are briefly outlined on p. 628.

WE ANNOUNCE THE COLONIAL RESULTS in our *Diary* competitions, and award a number of prizes to competitors at home and abroad (p. 639).

STATISTICS OF THE TRADE OF INDIA, so far as drugs and chemicals are concerned, exported and imported from 1903 to 1907 are given on p. 653.

A SOCIETY has been formed to protect the interests of dental assistants, Mr. L. Callendar being president. A report of the first public meeting is given on p. 624.

"XRAYSER" discusses the Australian Minister of Customs' views on proprietary medicines, also the derivation of the words "morphia" and "mortar" (p. 635).

THE EXCISE AUTHORITIES have prosecuted a provincial wholesaler for selling industrial methylated spirit to which mineral naphtha had been added as a denaturant at the time of sale (p. 630).

MR. SEYMOUR BELL, the British Commercial Agent in the United States, has reported on the trade of 1907, and we summarise it (chiefly in regard to the financial condition) in an article on p. 637.

THIS WEEK'S LETTERS to the Editor and the dispensing notes are exceptionally interesting. Tom Willing tells how in a few years he has built up a retail business with an annual turnover of 2,400l. (pp. 653-5).

IN THE ARTICLE on the principles of refrigeration, which is printed on pp. 641-3, diagrams and data are given respecting the compression, absorption, and brine methods of producing low temperatures for manufacturing processes.

THE RHODESIA PHARMACEUTICAL SOCIETY has submitted a series of valuable suggestions to the Customs Convention in regard to the duties on medicines and technical products sold by Colonial chemists. It is given in full on p. 628.

THE PRIZEWINNERS in the Winter Analytical Tournament of our Students' Corner are (1) Mr. Edgar Hill, Manningham, (2) Mr. W. Sivertsen, Mumbles, and (3) Mr. S. Holloway, Lowestoft. The tournament and this month's exercise are discussed on pp. 621-2.

SPIRITUOUS MEDICINES may only be sold without a spirit-licence by registered chemists and druggists. So Mr. J. B. Mears, Secretary to the Board of Inland Revenue, informs us, in reply to an inquiry about small shopkeepers being stopped selling sweet spirit of nitre (p. 637).

THE CHEMICAL AND DRUG MARKETS have been influenced by the holidays, but there is a steady undercurrent of business. Codeine and chrysophanic acid are lower, but morphine is unchanged. Citric acid, jalap, and Mexican scammony-root have advanced. Liverpool copper sulphate, nitrate of soda, benzols, Japan wax, and star aniseed oil are easier. Arsenic is lower again (p. 649).

# COLONIAL REPRESENTATIVES IN LONDON

Notes of Conversations in Regard to their Mission and their Work.

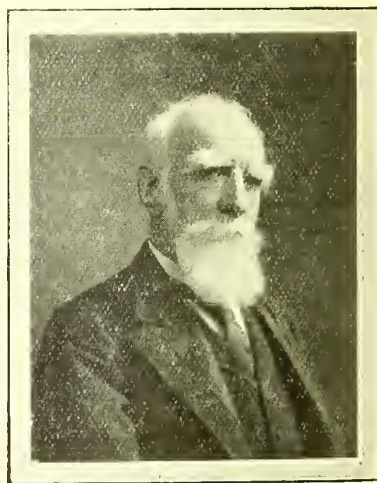
NOTHING can impress one more with the importance of the Colonies of the British Empire than a round of the London offices of their representatives. There one meets, almost any day of the week, business men who have prospered—many of them exceedingly—in various branches of life in those portions of the world belonging to Great Britain. The *raison d'être* of the Agent-General is to be found in the rapid development of the political, commercial, and industrial importance of our Colonies which has made it absolutely necessary that each State should be represented by a permanent official whose status is recognised by the British Government, thus entitling him to be on a level with the representatives of foreign Powers. The Agents-General are usually gentlemen who have long been resident in the Colonies they represent, and most of them have occupied seats in Colonial Parliaments and held Cabinet rank. They are therefore well acquainted with the affairs and interests of their portion of the Empire, and are often consulted by British and foreign Governments. Their chief duties are related to external business, especially that of a financial character, such as the raising of loans, arranging contracts, buying stores by tender, etc. They are expected to keep their respective Governments furnished with information concerning the welfare of the Colony, and formal proposals by individuals and firms are sent through their instrumentality. The offices of the States and Colonies are meeting-places for Colonials who are on a visit to this country, either on business or for pleasure, and it is an insistent characteristic of the Colonial who comes home that he combines business with pleasure to such an extent that the holiday, to all appearance, becomes more or less a secondary concern. Visits to the offices of the different Colonial representatives convince one, moreover, of the absolute necessity, not to mention utility, of such departments. The representatives are keen business men who know from actual experience the particular requirements of the countries they represent. It is their business to foster trade between their particular Colony and Great Britain, and this they do, without exception, with a large measure of success. They are doubtless hampered somewhat by being more or less official and representative of the Government, but this condition is the only possible one to secure fairness to all parties. For instance, an exporter of drugs, chemicals, or any of the allied products of the drug-trade may go to the Agent-General of a certain Colony and ask to be put in touch with the best house for a certain article in that Colony. The Agent-General (or High Commissioner, as the case may be) will put that exporter into possession of all the facts, figures, etc., relating to his particular industry in the Colony. He will tell him exactly the conditions under which business is done, the duties (if any), and he will give him a list of men with whom he is likely to do business, but he will not specifically indicate any individual firm as the best to do business with. Thus the exporter judges for himself to the best of his ability, and the representative of the Colony gives the colonists who are manufacturers, importers, or exporters, as the case may be, equal chances of business.

## The Dominion of Canada.

One of the first visits made by our representative was to the office of the High Commissioner for Canada at 17 Victoria Street, London, S.W. Canada has loomed so largely in the business eye for some years past that it is looked upon at the moment as the Colony with probably the most brilliant future. The High Commissioner in this country, Lord Strathcona, is a well-known figure in business, political, and society circles, and it is greatly due to his foresight, financial genius, and business acumen that Canada has attained the important position it holds to-day. In the course of a chat with the secretary to the High Commissioner we learned many things regarding the conduct of business there. The main purpose

for which the office of the High Commissioner for Canada is carried on is to promote emigration to the Dominion, to see that the emigrants are of the most desirable class, to foster commerce between Canada and this country, and generally to give advice on all matters whatsoever relating to Canada. The thing which is mainly insisted upon, however, is that the emigrants who are required for Canada are men who will go upon the land. There are extensive tracts of rich, fertile land waiting to be occupied, and the Government give suitable men every consideration and help, but at the moment the rush of an indiscriminate crowd with little or no knowledge of cultivation of the land is deprecated. The boom during the past few years has been enormous, but Canada is in no danger of being over-boomed.

"The office of the High Commissioner is instituted," said the courteous secretary, "to supervise the whole of the trade of the Dominion with this country. The produce of the Dominion is watched, as a matter of fact, from the time it leaves Canada until it reaches the hands of the buyer.



[Photo by Lafayette, Ltd.]

LORD STRATHCONA, G.C.M.G., F.R.S., LL.D., P.C., D.L.

The interests of the Dominion are carefully safeguarded, and we have shoals of correspondence from manufacturers, exporters, importers, and men in all kinds of business, seeking information of the most varied description and thanking us for avenues of business we have been the means of opening up for them."

"You supply not merely printed statistics?" queried our interviewer.

"By no means," was the reply. "We have the business so systematised that experts in various departments can give minute details and deal separately with each individual case—so far as can be done by a Government department."

"Supposing a chemist wished to emigrate to Canada, for instance. You could supply him with all particulars?"

"We could give him all the general information he required regarding climate, population, laws, and so forth; but, of course, we could not advise either way. Besides, chemists would find their own difficulty in competing with fully qualified chemists belonging to the Dominion, who have the inestimable advantage of knowing the country. The wholesale houses out there, as well as retail chemists themselves, are fully alive to new openings, so that it is only the energetic and able man who, as elsewhere, reaps the greatest reward. Of course, the opportunities are greater, probably, than in this country, but at the present moment the crying need of Canada is men to till the soil."



"Yes; but the enormous increase in population must mean more demand for tradesmen?"

"True; and anyone contemplating going to the Dominion with its unbounded possibilities may rest assured of getting the best advice and fullest particulars by writing to the secretary to the High Commissioner at this office."

There was much more to the same effect, but the number of callers whom one meets at these offices is a criterion of the expansion and growth of business in the Dominion. Some idea of this growth may be obtained from the fact that the total trade of Canada during 1907 was \$612,581,351, as compared with \$546,947,437 in 1906. A summary of the principal imports into Canada during the nine months ended December 1907 shows that Great Britain exported drugs, chemicals, medicines, and dyes to the value of \$1,228,474 free of duty, and \$655,550 of dutiable goods. During the same period the United States exported \$932,936 of dutiable goods and \$3,336,337 free of duty; while other countries sent \$476,864 worth of dutiable goods and \$486,531 free. There are other lines in which the drug-trade is interested, such as mineral oils, animal and vegetable oils, optical, philosophical, and photographic instruments, paints and colours, etc., all of which total to a very respectable sum. The exports from Canada during the nine months ended December 1907 included drugs, dyes, chemicals, and medicines to Great Britain to the value of \$210,021 home produce and \$1,023 of foreign produce. In the same period Canada sent to the United States \$463,395 worth of home produce and \$782,841 foreign, to Australasia \$13,728 home produce, and to other countries \$236,492 home produce and \$8,463 foreign. The commercial relations between Great Britain and Canada are becoming closer yearly, and the actual business done is increasing enormously. A significant fact is that while not so many years ago the bulk of the trade of Canada was done with the United States, now Canada is a growing competitor with the United States not only in produce but also in manufactures.

It is interesting to note that the other day Lord Strathcona was advised by the Minister of Finance at Ottawa that the Bill mentioned in *THE CHEMIST AND DRUGGIST* of December 14, 1907, p. 888, approving the Franco-Canadian Commercial Convention, has passed the final stage and received the Governor-General's assent. Another interesting event is promised this summer. This year Tercentenary celebrations of the founding of Quebec will be held, for which the Prince of Wales proposes to visit Canada in July.

For the information of chemists we may state that the "profession" is open to women upon the same terms as to men. In Prince Edward Island chemists must be registered under the P.E.I. Pharmaceutical Association. There is a Board of Examiners, and the diploma fee is \$5. The Council may at their discretion accept the diploma of any other competent examining body outside the Province. All chemists in New Brunswick must be registered by the Pharmaceutical Council after passing an examination or having their diplomas accepted. Registered medical practitioners may practise as chemists without examination. All vendors of drugs and medicines in Nova Scotia must be registered by the Council of the N.S. Pharmaceutical Society. There is an annual registration fee limited to \$4. In the Province of Quebec only authorised physicians or licentiates of pharmacy may act as chemists and druggists. The Council of the Pharmaceutical Association of the Province is the registering body. In pharmacy there are three classes: (1) certified apprentices, (2) certified clerks, and (3) licentiates of pharmacy. The Council of the Ontario College of Pharmacy is the registering body for chemists in Ontario. All persons approved of by the Council of the College who hold diplomas from the Pharmaceutical Society of Great Britain or from any pharmaceutical college in Canada may be registered without examination, but, as a matter of fact an examination is insisted upon. No person may be a chemist in Manitoba unless he is certified by the Pharmaceutical Association of Manitoba. Chemists in the North-West Territories must be registered by the Pharmaceutical Association of the N.W. Territories.

#### British Columbia.

The office of the Agent-General for British Columbia is at Salisbury House, Finsbury Circus, London, E.C. The affairs of this Province, which is becoming more popular as

an emigration ground with British people yearly, are well looked after by the Agent-General, Mr. J. H. Turner, and his staff. Mr. Turner is thoroughly optimistic regarding the future of his Province, and, judging by the number of inquirers during our representative's visit, it was apparent that the possibilities of British Columbia are being realised by the general public. The natural resources of the Province are so abundant that it is merely a question of going out and taking advantage of what Nature has provided. Mr. Turner's business is—as he put it to our representative—to give advice and information generally to those desirous of settling in British Columbia. An excellent handbook is issued concerning the Colony, and this more than anything else will give intending emigrants an idea of what to expect there. Our representative heard glowing opinions of the climate and prosperity of the country from men who had actually been out there and who were returning to it. One of the callers during our visit was a medical man who had been six years in South Africa, and had travelled home *via* Canada, and was so enamoured of the climate and the beauty of British Columbia that he had determined to settle there. As a matter of fact, he had already booked his passage, and was leaving in a few days, and he had merely called to interview the Agent-General and to obtain particulars of various parts of the country, such as are supplied freely and courteously to all who call there. The fact that he knew he would have to pass another medical examination before he could practise there did not appear to daunt him in the least. Like every other part of the Dominion, British Columbia has a Pharmacy Act of its own. The qualifying body is the Pharmaceutical Association of British Columbia, to whom application must be made and from whom a certificate must be received before one can practise as a chemist. The Board of Examiners appointed by the Association examines candidates, grants such certificates and diplomas as it may think proper to



[Photo by Elliott & Fry.]

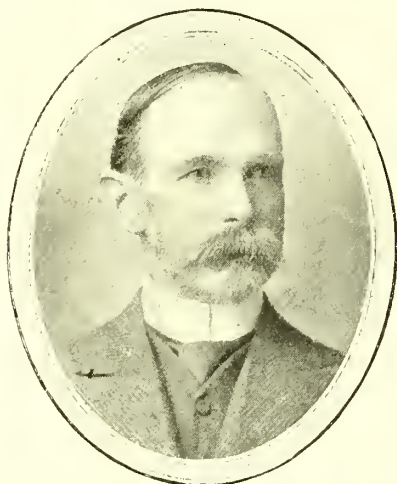
THE HON. J. H. TURNER.

those whom it deems qualified to be licentiates of pharmacy, certified clerks, or certified apprentices. All persons approved of by the Board of Examiners, who by examination have obtained diplomas from the Pharmaceutical Society of Great Britain or from any other pharmaceutical society in Canada, or elsewhere, whose standing and requirements are equal to those of the Pharmaceutical Association of British Columbia, may be accepted without further examination. No previous residential qualification is required, but Minor men are not registered without examination. Under the Pharmacy Act branch stores must be carried on by licentiates of pharmacy. A certified clerk may compound, prescribe, or sell poisonous drugs or chemicals while acting in that capacity, and "any person who presents a prescription to any qualified druggist to be filled shall be entitled to have such prescription returned to him by such

druggist." Moreover, another of the terms of the Pharmacy Act is to the effect that the Lieutenant-Governor of the Province shall appoint a fit and proper person, to be known as the public analyst, who must be a member of the Pharmaceutical Association.

### The Commonwealth of Australia.

Seven years ago the six Australian Colonies, after many attempts, agreed to unite into one indissoluble Federal



[Photo by Johnstone O'Shannessy & Co., Melbourne]  
CAPTAIN R. MUIRHEAD COLLINS, C.M.G.

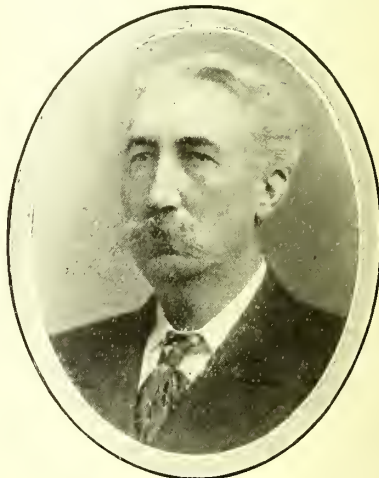
Commonwealth under the Imperial Crown, but it was not until 1906 that they appointed an official representative in London, pending the creation of a High Commissioner of the Commonwealth; Lord Northcote, the present Governor-General of Australia, is likely to receive the appointment. Meanwhile, Captain R. Muirhead Collins, R.N., C.M.G., temporarily fills the office of representative in a suite of rooms at 72 Victoria Street, Westminster, but some day, it is hoped, the Commonwealth will have a suitable house of its own in London. Captain Collins has a good record of Colonial service. He entered the Royal Navy in 1866 and retired in 1877. He was subsequently engaged by the Victorian Government to organise the naval forces, and was sent to England to assist in bringing out gunboats. In 1886 he was appointed Secretary for Defence for Victoria. In his present position Captain Collins is the medium through whom the Commonwealth transmits commercial information for publication by the Board of Trade, in regard to tenders, tariff decisions, etc. His advice is sought after by exporters as to interpretations of the Commerce Act, which relates to trade descriptions of imports and exports, and his services to the drug-trade in connection with the proposed legislation affecting the proprietary-medicine trade are still fresh in the minds of those directly interested. In a recent interview with the Captain, our representative was informed that the new tariff is being rapidly passed by the House of Representatives, and that Mr. Deakin will remain in office until this is accomplished. Under the Constitution, the Senate has no power to alter the tariff; but it may suggest alterations and refuse to pass the duties until suggestions have been acceded to. It is quite unlikely, however, that the 15-per-cent. import-duty on pharmaceutical preparations will be interfered with.

Some idea of the extent of Australian trade can be gathered from the official statistics compiled by Mr. G. H. Knibbs, the Commonwealth statistician. The latest figures, which are for 1906, show roughly a total trade in imports and exports of 114 millions yearly, and this is for a population of only four millions, of which one million are males. The exports include about twenty-one millions of wool, ten millions of wheat, fifteen millions of gold, and twelve millions of coal. The imports comprise over two millions sterling of drugs, chemicals, dyes,

paints, colours, etc. Medicines alone stand at 218,000*l.*, potassium cyanide 227,000*l.*, cream of tartar 121,000*l.*, free drugs and chemicals 200,000*l.*, tartaric acid 37,000*l.*, alkali 143,000*l.*, perfumery 65,000*l.*, gums 27,000*l.*, castor oil 45,000*l.*, perfumed soap 66,000*l.*, and turpentine 62,000*l.* In looking at the source of origin of these imports the one striking fact is that Germany has obtained a strong hold on the Australian market, judging by the way her exports have increased during the last five years. In 1902 the imports of a few leading items, including calcium carbide, potassium cyanide, cream of tartar, insecticides, medicines, and perfumery, from Germany, amounted to 71,137*l.*; but by 1906 these items had increased to 130,660*l.*, while the total of similar articles obtained from the United Kingdom was about 576,000*l.*, against 590,000*l.* four years ago. These figures show that the progress of the United Kingdom has been relatively much slower than that of Germany. In medicines alone Germany has but a small trade, estimated at 2,525*l.*, which is the lowest of the quinquennial period. Perfumed soap imports, which in 1902 were valued at 936*l.*, rose to 3,390*l.* in 1906, while those from the United Kingdom also rose from 30,800*l.* in 1902 to 39,000*l.* in 1906. On the other hand, the United States has lost ground, her contribution of drugs and chemicals amounting to 65,800*l.* only, which is lower than at any period of the quinquennium; of this amount, 41,460*l.* was for medicines (mostly proprietary), the remaining items being insecticides 2,560*l.*, perfumery 10,890*l.*, and calcium carbide 4,800*l.* There is nothing to suggest in the American figures that the British position is being seriously menaced, but the German trade should be closely watched.

### South Australia.

The Hon. J. G. Jenkins, J.P., Agent-General, has been for ten years consecutively a Minister of the Crown in South Australia, including four years as Prime Minister. In addition to his wide Australian experience he has also spent part of his life in the United States and Canada, and may therefore be looked upon as the *doyen* of the Australian Agents-General. In the course of a short interview with him our representative gathered that his Government is making strenuous efforts to develop trade with the Mother Country. Its endeavour is to supplement private enterprise by enabling every producer to place his goods on the best markets under the best supervision. Indeed, the



[Photo by Russell & Sons.]  
THE HON. J. G. JENKINS.

Government goes further than any other, inasmuch as produce intended for export to Europe is received at the States Produce Department, where it is examined by experts, properly graded, classified, and marked. It is then shipped to Europe to be disposed of by the commercial agent here. The Government even collects the proceeds of the sales and pays them to the producer, deducting a small commission for charges. In London the produce depart-



ment is at the Agent-General's Office, 28 Bishopsgate Street Within, where Major A. E. M. Norton is in charge. At this office samples of every description of South Australian produce are displayed, and some idea of the character of the business may be gathered from the fact that the yearly exports exceed nine millions, wheat, wine, fruit, frozen meat, and dairy produce being the chief items. The Government has developed a good trade in honey, which is being sold direct to the public through the agency of such firms as Lyons, Whiteley, the Army and Navy Stores, etc., who buy in bulk (two 60-lb. tins in cases), bottling it in their own factories, the Government reserving the right of supervision if necessary. The honey is of the finest quality and flavour, and the output is about  $1\frac{1}{2}$  million lb. annually, but the industry is capable of enormous expansion. Special care is taken to prevent over-production, that being one of the evils which the Government has remedied by its organisation in selling direct to the actual distributor. The Government has also taken an interest in the eucalyptus oil industry by a grant of land to distillers. The distillation, however, in South Australia appears to have fallen away considerably of recent years, as in 1906 (the latest returns available) the value of exports was only 933*l.*, of which the United Kingdom received 848*l.* worth. The "K.I." brand of eucalyptus oil is one that is now being shipped to this country under the auspices of the Government. It is distilled and bottled at the works on Kangaroo Island from the narrow-leaf eucalyptus.

The South Australian Government has no organisation for fostering exports from Great Britain, but in this respect there is no cause for complaint, except that practically no means exist for the transmission of prompt commercial information regarding foreign competition. The annual year-books are useless in this respect, and one has to fall back upon the statistical register, compiled from official records. The latest figures dealing with South Australia are for 1906, and show total imports of 9,702,000*l.*, and exports of practically twelve millions sterling: the United Kingdom shipped 2.5 millions worth of goods, other parts of the Commonwealth 5.7, and foreign countries 963,000*l.*, Germany and the United States having the lion's share of this business with 334,000*l.* and 405,000*l.* respectively. The total value of drugs, chemicals, and medicines imported into the State in 1906 was 85,684*l.*, or 8,000*l.* more than in the previous year, but what proportion of this amount was obtained direct from the United Kingdom is not stated. Government stores figure for 37,000*l.*, but an infinitesimal amount of this represents drugs and chemicals, the chief tenders on Government account (principally for the supply of the hospitals) being placed locally, although occasionally, say, a 200*l.* indent may be sent to London when circumstances warrant.

### Tasmania.

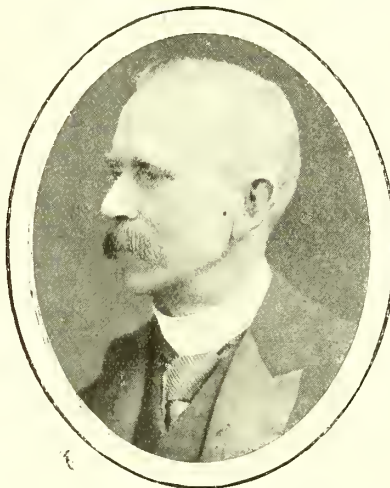
The State of Tasmania is represented in this country by the Hon. Alfred Dobson, the Agent-General, whose offices are at 5 Victoria Street, Westminster, S.W. This by no means unimportant portion of the Australasian Commonwealth is steadily progressing in population and in commerce. Its trade is mainly natural produce, for the island is rich in minerals as well as in alluvial soil. But there is likewise considerable business in which *C. & D.* readers are primarily interested, for in 1905-6 the exports of chemicals, drugs, medicines, and allied products amounted in value to 1,711*l.*, while the imports totalled in value 43,039*l.* Full particulars regarding the trade of Tasmania in 1905-6 were given in our issue of March 14, p. 417. Mr. Dobson smiled when a query as to the scope of his work was put to him.

"That is rather a wide question," said he. "The work of this office comprises all that concerns Tasmania, Governmental or otherwise. We are here to give to all interested parties such particulars as we have at our command concerning all matters appertaining to the State."

The Agent-General then went into details, speaking calmly, confidently, and with conviction of the future of Tasmania. At the office particulars of climate, soil, conditions of life, etc., are freely given, opportunities for trade are indicated, and the various laws of the State may be consulted. Passing from the general to the intimate, the Agent-General chatted regarding pharmacy laws, the

prospects for emigrant-chemists from this country, and the proprietary-medicine question. In this connection he incidentally paid compliment to *THE CHEMIST AND DRUGGIST*.

"I see you have some useful information in your journal



[Photo by Maull & Fox.]

THE HON. ALFRED DOBSON, C.M.G.

from time to time regarding Tasmania," said Mr. Dobson. "You apparently have a good correspondent there."

Regarding the disclosure of formulæ controversy, he said that he could scarcely help sympathising with both sides. While, on the one hand, there are certain deleterious quack proprietaries, the use of which is harmful to the public, on the other hand, many genuine proprietaries are sold, and disclosure of formulæ in the case of the latter would be injuring a legitimate and genuine industry. He trusted a way would be found out of the difficulty to suit all parties concerned.

No one is permitted to sell drugs in Tasmania without a licence from the Court of Medical Examiners, except licensed medical practitioners and others under certain restrictions where there is no such licensed person within two miles. Restrictions are imposed with regard to the unlicensed sale of certain poisons.

### Victoria.

Each of the six States of Australia is a sovereign State, and each has an Agent-General in this country. Each State is practically independent, making its own financial arrangements and managing its own internal affairs, matters of national import only being directed by the Commonwealth.

A visit to the offices of the Agent-General for Victoria, the Hon. J. W. Taverner, at 142 Queen Victoria Street, E.C., proved to be interesting. Mr. Taverner is not unknown to readers of *THE CHEMIST AND DRUGGIST*, for it will be remembered that he was interviewed a short time ago by a deputation of the London Chamber of Commerce regarding the Victorian Pure Food Act (*C. & D.*, December 22, 1906, p. 941). In our recent interview Mr. Taverner very courteously detailed the work which he does for his Colony. He pointed to letters of appointment by the score which lay upon his desk to be dealt with individually and in detail. He spoke of the slow but steady and sure growth of the "Garden State of Australia," of its unlimited possibilities and its splendid climate. It is the country for wheat-growers, dairy farmers, wool-growers, cattle-raisers, orchardists, and so forth. Its popularity is shown by the fact that for 260 allotments recently offered by the Victorian Government there were 2,900 applications. The actual produce of the country is on view in the showrooms at Queen Victoria Street, and all those interested will have better chances still for personal inspection when the Agent-General has removed to his fine suite of offices now in course of erection in the Strand. In connection with the produce of the Colony a list of exporters, with their agents in the



United Kingdom, is supplied at the office. Those who are unable to call and see Mr. Taverner personally will get much valuable information by writing for the Victorian Year-book, the handbook concerning Victoria supplied by the office, and other particulars. The Agent-General and his staff are willing, and indeed eager, to give information on all matters affecting the Colony. Two chemists interviewed the Agent-General a few weeks ago, prior to leaving for Victoria to try their fortunes.

To practise as a chemist or druggist in Victoria one must be certified and registered by the Pharmacy Board of Victoria. Pharmaceutical chemists, chemists and druggists, "or homœopathic chemists" who have passed the British examinations, or who hold a certificate of competency from any college or board of pharmacy recognised by the Board, are eligible on payment of a registration fee of 2*l.* 2*s.* Otherwise candidates are required to pass a Preliminary examination before beginning an apprenticeship of four years to

a registered pharmaceutical chemist, or chemist and druggist, or homœopathic chemist keeping open shop, or dispensary of any friendly society registered under the Friendly Societies Acts, or dispensary kept in connection with any public hospital under the management of a registered pharmaceutical chemist for the compounding and dispensing of the prescriptions of legally qualified medical practitioners; and shall also have attended one course of lectures and passed examinations during one session in each of the following subjects at the University of Melbourne or some school or college of pharmacy recognised by the Board—viz., materia medica, botany, chemistry, and practical chemistry; and shall have passed examinations before the Board, or before examiners thereby appointed, on the subject of practical pharmacy and any sub-



[Photo by J. Russell & Sons.

THE HON. J. W. TAVERNER.

ject that may be prescribed by the Board with the approval of the Governor in Council.

Chemists from certain other Australian States are entitled to registration in Victoria on becoming residents.

#### Western Australia.

This State has an area of 967,000 square miles, and is the largest of the Australian Colonies, but its population is only 264,000. Its import trade in 1906 was valued at 3,780,495*l.*, of which 2,316,000*l.* worth was received from the United Kingdom and 1,218,200*l.* from foreign countries. The exports in 1906 were rather over nine millions sterling, and consist chiefly of raw gold, wheat, wool, and fruit. The Government publishes a statistical abstract each month of the imports and exports, which is valuable to those seeking early and trustworthy information. That for February 1908 shows imports of drugs and chemicals valued at 24,762*l.*, of which 20,461*l.* was from overseas; other items we notice are cream of tartar 800*l.*, tartaric acid 123*l.*, castor oil 530*l.*, eucalyptus oil 212*l.*, oilmen's stores 2,500*l.*, paints, colours,

and varnishes 3,581*l.*, perfumery 948*l.* (760*l.* direct), photo goods 128*l.*, quicksilver 1,680 lb. or 487*l.*, soap 3,624*l.*, and turpentine 1,265*l.*

These are a few of the leading imports for February alone, and if this is a typical month we are sure the trade of Western



[Photo by Elliott & Fry.

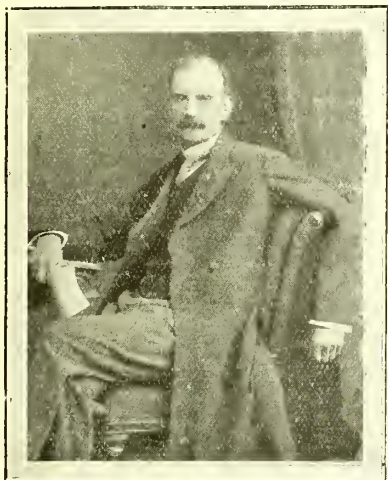
THE HON. C. H. RASON, F.R.C.I.

Australia is well worth looking after. Up to within recent years the Westralian market was not thought of great account, but there is a steady development taking place. "The State," said the Agent-General to our representative, "is still 'in the making,' and all we want is agriculturists, and these we send out at about the rate of a hundred per month. There are always good opportunities for chemists' assistants at the top of the tree—we have plenty of second-rate ones there already," was the answer to our inquiry as to the conditions of pharmacy. Suitable openings for new business present themselves from time to time, mostly in the agricultural towns, and in the majority of instances the men do well. The Hon. C. H. Rason, the Agent-General in London for Western Australia, was born in Somerset in 1858 and emigrated to the Colony in 1881. He entered the local Parliament in 1889, was appointed Minister for Works and Railways from 1902 to 1904, and acted as Premier from 1905 to 1906.

#### New Zealand.

During the past ten years New Zealand has occupied a share of the world's attention which contrasts remarkably with the area and population of the Dominion, for under the leadership of the late Mr. Seddon and the present Premier, Sir Joseph Ward, many legislative experiments have been inaugurated, some affecting the interests of chemists and druggists and the drug trade as a whole, most of which are fresh in the minds of our readers. Undoubtedly it is the most thriving Colony we possess, for although the population is under 900,000 (exclusive of Maoris) the exports of Colonial products during 1906 amounted to no less than eighteen millions sterling, an increase of 2.3 millions, or 15 per cent., while the imports were valued at 14.3 millions sterling, or 1.9 million more than in the previous year, making a total trade of 33,000,000*l.* It will therefore be seen that the Dominion, though still comparatively small, is a market of considerable importance, and worthy of the most careful consideration by British manufacturers and merchants. At present we have a great pre-eminence in the trade of the Dominion, but recent statistics show that our business there now meets active competition from foreign countries, especially the United States and Germany, and it is necessary that exporters be fully alive to their interests in New Zealand. The import trade in 1906 was roughly distributed as follows: United Kingdom 8,920,000*l.*, Australian Commonwealth 1,955,000*l.*,

other British possessions 1,111,000*l.*, United States 1,400,000*l.*, Germany 337,000*l.*, and other foreign countries



[Photo by Maull & Fox.]

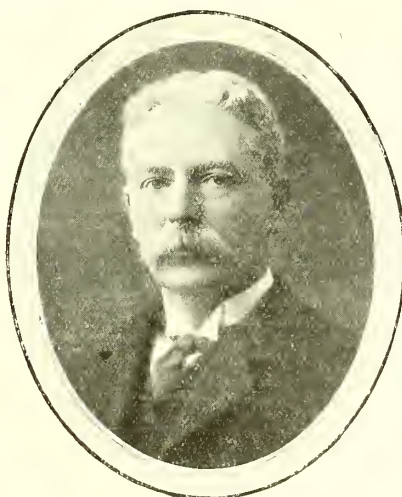
THE HON. W. PEMBER REEVES.

574,000*l.* Of drugs, chemicals, and druggists' wares the total amount imported from all sources was 316,000*l.*, or 51,000*l.* more than in 1905. The United States share of this may be put at 17,000*l.* (chiefly proprietary medicines), while Germany contributed 6,000*l.* worth. Full details of the various drug and chemical imports were given in our issue of March 14. In July 1907 a new tariff was passed by which drugs, chemicals, medicines, druggists' wares, etc., were advanced from 15 per cent. to 20 per cent. *ad valorem*, while those coming from foreign countries pay 30 per cent. With the aid of this preferential 10 per cent. there is no reason why we should not be able to keep a hold of existing trade, and to extend the total. One factor which favours our predominance in New Zealand's trade is the absence of all direct steamship communication between the Dominion and Continental ports. On this side the interests of the Dominion as a producer are ably served by the High Commissioner, whose services are always available. The Hon. W. Pember Reeves has been High Commissioner for New Zealand since 1905. He is a barrister by profession, but preferred journalism, and was editor of the "Canterbury Times." He was a member of the New Zealand Parliament from 1887 to 1896, and Minister of Education, Labour, and Justice from 1891 to 1896. Apart from the purely administrative work, one of the chief objects of the High Commissioner is to find settlers for the land, and in this connection exceptional facilities are offered to eligible persons, but the Government takes particular care that none but picked men are allowed to go out under its auspices. As a rule few applications are received from chemists who desire to go to the Dominion, and Mr. Reeves would not advise anyone to emigrate on the chance of obtaining an appointment.

#### Cape Colony.

Sir Somerset Richard French, K.C.M.G., the Agent-General of Cape Colony, has been forty-two years in the Civil Service, and has been entrusted with much valuable work in developing the postal service, his apprenticeship to which he served in the General Post Office, London. He was created Postmaster-General in 1901, and his appointment to the Agent-Generalship in London is quite recent, he having this year succeeded Sir Thomas E. Fuller. The Cape of Good Hope is the most interesting and ancient of our South African Colonies, and the trade of her capital, Cape Town, surpasses that of any other port. The Colony, however, is still in the throes of depression, and, as a consequence, the population has been slowly declining since the war; but Sir Somerset French, who has great faith in the possibilities of this land of surprises, expresses the conviction

that affairs are slowly turning the corner, and, as the Cape Government is fostering agriculture and mining in every possible way, he is quite of opinion that a general revival in trade will take place ere long. At present there is a constant railway expansion going on at the Cape, and there will soon be a linking-up of the great trunk systems not only within Cape Colony but also with the centres of the Orange River Colony, the Transvaal, and Rhodesia, which will all tend to the promotion of trade. The administration is also devoting its attention to the export of produce to Great Britain on similar lines to those of our Australian Colonies, and for this purpose a commercial agency has been opened at 98 Victoria Street, Westminster, under the superintendence of a Trade Commissioner, who gladly supplies free information on trade subjects connected with the Colony, such as commercial products, industries, trade tariff regulations, commercial statistics, railway rates, prospects for emigration, etc. That affairs have not been progressive in the drug-trade in Cape Colony is shown by the fact that last year there was a shrinkage of about 10,000*l.* in the imports of medicines, which were valued at 63,000*l.*, while of drugs, chemicals, and dyestuffs the imports were 8,000*l.* less, being 233,000*l.* These figures, however, do not reveal much indication of decay, and with a steady industrial development on the lines indicated we share the Agent-General's belief that the depression will ere long give place to better times.



[Photo by Duffus Bros., Cape Town.]

SIR SOMERSET FRENCH.

#### Natal.

The headquarters of the Government of Natal in this country are at 26 Victoria Street, Westminster, S.W., and the Agent-General is that genial veteran Sir William Arbuckle, who mentioned to a *C. & D.* representative that he had been in Natal for fifty-four years. He left Scotland when he was ten years old, and up till about four years ago, when he was appointed Agent-General in England, he had lived and worked continuously in Natal. He had, as he phrased it, grown up with Natal, and to anyone desirous of obtaining any kind of information concerning the Colony his advice is invaluable. At his office directories are kept of importers and exporters in all lines of business, and generous advice is tendered to all applicants. With regard to prospects, Sir William confessed that things at present are not over bright, but Natalians who are continually calling at 26 Victoria Street in the course of their wanderings, on business or holiday, agree that prospects are better now than they have been for some time past.

"The folks are feeling the reaction of abnormal prosperity," was the effect of Sir William's explanation. "During the war, merchants and shopkeepers were so busy that they made a great deal of money. Their incomes advanced rapidly, and the rate of living went higher. Some of them forgot that the boom was abnormal and could not last. So while the huge incomes and big



profits dropped, the style of living was not proportionately reduced in many cases. Hence the trouble."



[Photo by W. Laws Caney, Maritzburg.  
SIR WILLIAM ARBECKLE.

But faith in the future of the Colony and its resources is a predominant feature of the Agent-General and his staff. In the showroom at 26 Victoria Street there are many natural products of Natal on view which will interest the drug trade. A cursory examination of the show-cases disclosed samples of aloe-leaves, Ibunga rubber, nuts of *Hyphæne crinita* (suggested as a substitute for "vegetable ivory"), arrowroot, and sunflower-seeds.

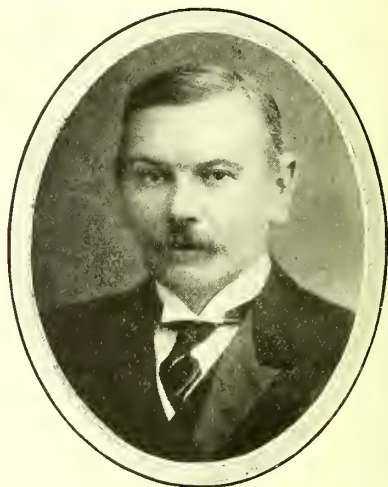
Chemists who think of Natal as a favourable colony to which to emigrate will be given every possible information by the Agent-General and his staff, the pharmacy laws of the Colony may be consulted in detail, and exporters may find out all about tariffs and duties. The pharmacy regulations enact that all chemists (women are eligible as well as men) must be licensed. The diplomas of the Pharmaceutical Societies of Great Britain and of Ireland are recognised by the Natal Pharmacy Board, the registering body. Failing such qualifications, an examination (fee 3*l.* 3*s.*) must be passed in prescriptions, practical dispensing, pharmacy, materia medica, botany, and chemistry, after a Preliminary examination has been negotiated. A certificate after examination costs 3*l.* 3*s.* more, and registration 1*l.* 1*s.*

### The Transvaal

may claim to be one of the youngest countries opened to the industries of the white man, and now that it has been granted responsible government there is every reason to believe that its natural resources will be steadily developed. At the present time, however, a period of depression prevails which has closely affected all branches of trade. Coming, as it did, so quickly after a time of great industrial activity and development, which drew large numbers of business-men to the country, the depression has been more keenly felt. With the gradual development of the rich mineral and agricultural resources of the country, however, we look for a return of prosperity and an increased demand for labour. Apart from the gold, diamond, and coal mining industries and agriculture, there are practically no internal industries in the Transvaal in the real sense of the word, so the country is pre-eminently an importer. The bulk of the imports are of British origin, although America and Germany have carefully cultivated the market for years. In this connection it is to be regretted that we have no commercial representatives there to watch, note, and transmit promptly to this country the changes in, and wants of, the Transvaal. True, the Board of Trade occasionally send out a commercial expert who investigates, and about a year after a Blue-book is issued, and there the matter ends. Compare this with the activity of the American Consuls throughout the whole of South Africa, who

issue daily, monthly, and annual reports, which they take good care reach American manufacturers alone. On their side, the Transvaal and Orange River Colony have a Trade Inquiry Office at Basinghall Street, E.C., under the general direction of the Commercial Intelligence Branch of the Board of Trade. Here all information can be obtained in regard to the products and resources of the two Colonies. Recent statistics which have been issued by the South African Customs Bureau show that in 1907 the Transvaal imported drugs, chemicals, and dyestuffs valued at 406,600*l.*, against 405,227*l.* in the previous year; while the imports of medicines alone were valued at 41,162*l.*, against 42,160*l.* Last year the Transvaal bought more locally, her imports of medicines from the other Colonies being valued at 9,471*l.*, against 8,095*l.* Glycerin for manufacturing purposes declined to 4,463,000 lb., or 1,434,570 lb. less. The Orange River Colony bought 10,851*l.* worth of medicines last year, against 12,900*l.* in 1906, a further 6,570*l.* being obtained from her neighbours, this amount being an increase of 816*l.* on the 1906 figures; and of drugs, chemicals, and dyestuffs the values were 42,000*l.*, or 3,000*l.* less, a further 2,000*l.* being obtained elsewhere in the Customs Union.

The Hon. Sir Richard Solomon, K.C.B., K.C., is the Agent-General for the Transvaal in London. He was born in Cape Town fifty-eight years ago, and completed his education at Cambridge, being twenty-third wrangler. He was called to the Bar in 1879, and twenty-three years later was appointed Attorney-General of the Transvaal,



[Photo by Elliott & Fry.  
SIR RICHARD SOLOMON.

which position he held at the time of his appointment as Agent-General.



### A COLONIAL PHARMACY.

This characteristic sub-tropical building shelters the dispensary of Mr. T. Parker, chemist, Georgetown, Queensland. Our engraving is reproduced from a picture postcard used by Mr. Parker.



## Corner for Students.

CONDUCTED BY LEONARD DOBBIN, Ph.D.

Students, please note. All communications should be addressed to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

All communications and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

### QUALITATIVE ANALYSIS FOR JUNIOR STUDENTS.

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. The mixture will comprise acids and inorganic bases occurring in the British Pharmacopoeia, and is to be submitted to thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by a stamped and addressed envelope, not a stamp merely) will be received up to Tuesday, April 28, and the samples will be posted on the following day.

Students' reports will be received up to Saturday, May 9. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In the list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts composing the mixture.

**SPECIAL NOTICE.**—The prizes in this series of analyses will be awarded only to apprentices or assistants who are preparing for the Qualifying examination of the Pharmaceutical Society of Great Britain or of Ireland, *which fact must be attested on their reports.* Others may obtain specimens of the mixture of salts, and their reports will be separately adjudicated, but they will be regarded as *hors concours*. Correspondents who do not state that they are preparing for a qualifying examination will be included in the latter list.

### REPORTS.

The powder distributed to students on March 25 consisted of equal parts by weight of cupric sulphate (crystallised), zinc sulphide, and magnesium hydroxycarbonate. The calculated composition of such a mixture is—

Cu	...	...	...	...	8.5
Zn	...	...	...	...	22.4
Mg	...	...	...	...	8.5
SO <sub>4</sub>	...	...	...	...	12.8
S	...	...	...	...	11.0
CO <sub>3</sub>	...	...	...	...	15.6
OH	...	...	...	...	2.9
H <sub>2</sub> O	...	...	...	...	18.3

100.0

The powder also contained, as impurities, ammonium and the hydrochloric-acid radical in small quantity, and a trace of iron.

Samples of the powder were distributed to thirty-nine students, and twenty-one reports were sent in for examination. Copper was the only constituent which was detected by any of our correspondents. The failures in the detection of the other constituents were: (a) Metallic radicals—Zinc 3; magnesium, 5. (b) Acid radicals—Sulphuric, 1; hydrosulphuric, 1; carbonic, 9. Nine students failed to observe the evolution of water when the powder was heated in a dry test-tube—a somewhat remarkable fact, since the mixture yielded almost exactly one-fifth of its weight of water.

The grey colour of the powder was due to a slight

interaction of the crystallised cupric sulphate and the zinc sulphide which took place on intermixture, and as the result of which a thin coating of black cupric sulphide was formed on the particles of the cupric sulphate crystals, and masked their blue colour. Several students picked out some of the larger of these particles, washed them carefully with water so as to remove the dark coating, and recognised the blue particles beneath and the blue aqueous solution which they yielded. It was probably the absence from the original powder of the characteristic blue colour of crystallised cupric sulphate that led a few students to suppose that the copper was present in the form of anhydrous sulphate.

When the powder was mixed with water, rapid interaction took place, and a nearly black mixture was produced which contained cupric sulphide in considerable quantity. By the action of moderately dilute hydrochloric acid, either hot or cold, abundant gas evolution was brought about, but the cupric sulphide remained practically unchanged, and was only decomposed on the addition of some nitric acid or potassium chlorate, with the formation of a blue or green solution. The evolved gas was a mixture of hydrogen sulphide and carbonic anhydride. Some students tested for the former only, some for the latter only, although the majority tested for and detected both. The omission to test for carbonic anhydride was the chief cause of the numerous failures to detect the presence of a carbonate; but a few who tested for it failed, for some reason, to prove its presence along with the hydrogen sulphide.

The systematic examination of the acid solution for metallic radicals presented little difficulty, although a few students got into trouble with the treatment of the ammonium hydrosulphide precipitate (of zinc sulphide), and observed reactions which led them to conclude that aluminium or manganese was present and zinc absent. These conclusions appear to indicate insufficient familiarity with the precautions necessary in handling an ammonium hydrosulphide precipitate, since there is no real difficulty in dealing with a precipitate which consists of zinc sulphide alone.

For those who detected both sulphide and carbonate by the examination of the gases liberated by hydrochloric acid, there was little left to do to detect the third of the acid radicals (sulphuric) present in considerable quantity. The proof of the absence of small quantities of other acid radicals was not quite so simple, and a number of our correspondents were not so successful with it. The powder contained the hydrochloric acid radical in small quantity, but in order to prove its presence it was necessary to boil a portion with sodium carbonate which was free from traces of chloride, and to filter, acidify the filtrate with nitric acid, and add silver nitrate. The short step to the demonstration of the presence of traces of a chloride, by dissolving the original substance in dilute nitric acid and adding silver nitrate, although not altogether precluded, was rendered to some extent unsafe in the present case because it would have been necessary to add nitric acid and boil in order to decompose the cupric sulphide, and this would have led to the volatilisation of part, at least, of the chlorine.

As regards other constituents present as impurities, only ammonium need be referred to here. The presence of ammonium was observed by many, but not by all, of those students who tested for it, its quantity being so small that unless a more delicately applied test was employed than the usual boiling in a test-tube with sodium hydroxide solution and recognising ammonia at the mouth of the tube by aid of turmeric or litmus paper, or by simply smelling, there was considerable risk of its being overlooked altogether.

E

## PRIZES.

The First Prize for the best analysis has been awarded to  
WERNER SIVERTSEN, 17 Newton Road, Mumbles,  
R.S.O.

The Second Prize has been awarded to

JAMES BEATTIE, c/o M. W. Alexander, 33 Square, Kelso.

*First Prize.*—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

*Second Prize.*—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

## MARKS AWARDED FOR ANALYSES.

## 1. Correspondents who are unqualified:

Werner Sivertsen (1st prize) ...	98	Query ...	78
James Beattie (2nd prize) ...	97	Sulphur ...	77
Pharmacy ...	96	Gonc ...	72
A. F. M. ...	95	Norfolk ...	65
R. W. W. ...	92	H. Booth ...	62
Wasp ...	91	Menai ...	61
Zigo ...	85	Rex ...	58
		F. E. Herington ...	43

## 2. Correspondents who are qualified, or who have not indicated that they are unqualified:

Boiling-Point ...	84	N. Holmes ...	74
Bon-Accord ...	95	Donald McKenzie ...	83
Esprit de Corps ...	78	Socius ...	98

## TO CORRESPONDENTS.

A. F. M.—Having found three acid radicals to be present in quantity, you ought to have looked for traces of others instead of concluding that it was unnecessary to look for more.

R. W. W.—In many places in your report you simply state what you observed, but do not say what inferences you draw from your observations. The inferences should be drawn by yourself, and not left to the imagination of the reader.

WASP.—Dilute nitric acid—not the concentrated acid—should be used to test the solubility of a precipitate supposed to consist of barium sulphate. You do not report having applied any test for ammonium salts. It was not possible to test for traces of a chloride by aid of sodium carbonate which contained chloride in considerable quantity.

ZIGO.—With almost convincing evidence before you of the presence of a carbonate, you concluded, strangely enough, that a carbonate was absent.

QUERY.—To boil a powder known to contain a sulphide with aqua regia, and then to test the solution so obtained for the presence of a sulphate, as a means of ascertaining whether the original powder contained a sulphate, is a faulty analytical procedure, since some sulphuric acid is certain to be produced by the oxidation of the sulphur of the sulphide.

SULPHUR.—When carefully and thoughtfully carried out, the plan you adopted in searching for bases by boiling the powder with sodium carbonate, dissolving the well-washed residue in an appropriate acid, and examining the solution for metallic radicals, is usually capable of furnishing results which are satisfactory so far; but if the residue has been thoroughly washed, it will be futile, as a rule, to test, as you did, in the solution obtained from it for the metals of the alkali group. Further, the sodium carbonate filtrate must not be discarded without testing it for potassium and lithium; while it may also contain mercuric cyanide, tartar emetic, and one or two other substances which are left wholly or partially undecomposed by boiling with solution of sodium carbonate. If you depart from the well-tried routine methods of the text-books, you must be specially careful to attend to every place where new sources of error may creep in.

GONC.—Your report appears to have been written hurriedly, and scarcely to do justice to your work. You do not say anything about testing for magnesium, so that no conclusion can be arrived at as to why you failed to detect its presence.

H. BOOTH.—The flame-test for potassium should not be applied until metals belonging to the copper, iron, etc., groups have been removed. The precipitate which you obtained with silver nitrate in the sodium-carbonate extract to which nitric acid had been added was most likely silver carbonate; that the nitric acid had not been added in excess seems clear from the fact that the precipitate dissolved on adding a few drops more of this reagent.

MENAI.—The powder could not be described correctly as insoluble in water: it was partly soluble and partly insoluble. We cannot offer any suggestion as to why you failed to

obtain the very delicate reaction of copper with excess of ammonia unless you added the ammonia to the wrong test-tube or failed to add it in excess.

REX.—The residue which you supposed to be mercuric sulphide really consisted of undecomposed cupric sulphide; had it been mercuric sulphide it would have yielded a sublimate of metallic mercury on heating with dry sodium carbonate in a sublimation tube.

F. E. HERINGTON.—Your analysis seems to have been far from complete, and many of the tests appear to have been applied in an erratic and unsystematic manner. It is not sufficient to state that the tests with sulphuric acid, with silver nitrate, and with barium nitrate yielded no definite results: you should give full particulars of how these tests were applied.

BOILING-POINT, ESPRIT DE CORPS, and Others.—When the gas liberated by treating a small quantity of the powder with dilute hydrochloric acid—especially in the presence of a fragment of clean zinc—was led into lime-water, the characteristic turbidity due to the formation of calcium carbonate was easily obtained and observed.

BON-ACCORD.—You do not adduce any evidence in support of the conclusion that the powder contained *anhydrous* cupric sulphate; while the fact that you observed the evolution of water when the powder was heated in a dry test-tube was on the whole, rather against than in favour of that conclusion.

N. HOLMES.—The precipitate which you supposed to consist of aluminium hydroxide may have been zinc sulphide, reprecipitated on adding ammonia in excess to an acid solution from which hydrogen sulphide had been incompletely expelled by boiling; or it may have been magnesium hydroxide precipitated because ammonium chloride had not been added in sufficient quantity prior to the addition of ammonia. Read also the reply to "Query." Kindly send your address with any future reports.

DONALD MCKENZIE.—Had lead been present in the powder in small proportion, you would probably have failed to detect it, as you do not report having tested for lead in the copper-group precipitate. Read also the reply to "Bon Accord."

## THE ANALYTICAL TOURNAMENT.

In our issue of September 21, 1907, we offered three special prizes of books, and also certificates, for the best series of reports submitted on the analytical exercises set from November 1907 to April 1908, inclusive. The Tournament concludes with the analysis reported upon above, and we are now able to summarise the results and announce the names of the prize-winners. During the winter forty-nine students in all took part in the Tournament, and, as on previous occasions, a number of reports of a highly meritorious description were received month by month. The aggregate score which have been attained by the prize-winners this year are slightly lower than those of last year—a result which may be accounted for, in part at any rate, by the greater difficulty in dealing with the somewhat unfamiliar type of special exercise set for the January and March competitions.

The first place in the Tournament has been taken by "Socius" (Mr. Edgar Hill, 51 Carlisle Terrace, Manningham, Bradford, Yorks.), with an aggregate of 564 marks made up, with very praiseworthy steadiness, of 96, 98, 97, 84, 91, and 98, and to him the first prize, of books to the value of two guineas and a certificate, has been awarded.

The second place and prize (books to the value of one guinea and certificate) have been taken by "Norseman" (Mr. Werner Sivertsen, 17 Newton Road, Mumbles R.S.O.), with an aggregate of 553 marks, also made up with praiseworthy steadiness, of 93, 83, 94, 95, 90, and 98.

The third place and prize (books to the value of half-a-guinea and certificate) have been taken by "Boiling-Point" (Mr. S. Holliday, 44 Worthing Road, Lowestoft), with an aggregate of 501 marks, made up of the creditable score 97, 79, 76, 91, 74, and 84.

We have to congratulate these prize-winners on the successful results of their careful work during the winter, and we shall be glad to hear from them regarding the books which they desire as prizes.



## English News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

### Brevities.

The Chief Inspector of Factories and Workshops reports that 12,774 persons are employed in the alkali-industry and 33,932 in other chemical industries in this country.

A fire broke out on April 19 among some packing-cases at the back of the shop of Mr. W. J. Lewis, chemist and druggist, Hinckley Road, Leicester, but only slight damage was done.

At the Easter Monday parade organised by the London horse-trade, Camwal, Ltd., won the second prize with a fine pair of horses in one of their attractive delivery vans.

At Tipton, Staffs, on April 21, three men were committed for trial on a charge of manslaughter in connection with the death of an old man named Pearson, to whom it is alleged they administered jalap in beer.

C. Russell, the man who obtained 16*l.* from Mr. W. R. Cartley, druggist, Sheffield, for a cob which was not according to description, was at the Sheffield Quarter Sessions on April 15 sentenced to twelve months' hard labour.

At Worthing, on April 18, Herbert Peters, errand-boy, was remanded on a charge of breaking into the shop of his employer, Mr. Walter Aston, pharmaceutical chemist, Montague Street, and stealing chocolate value 3*d.*

A labourer named John Alexander was at Chatham on April 14 fined 5*l.*, and 5*l.* damages, in default two months' hard labour, for breaking a plate-glass window at the shop of Mr. Albert Edward Farrow, chemist and druggist, Old Compton.

At Kingston-on-Thames, on April 16, Kate Grudden was remanded on remand with administering to her daughter, aged four years, carbolic oil with intent to murder. Since the last hearing a young man had offered to marry prisoner she was discharged, and this the Bench agreed to do.

At an inquest held at Leicester on April 21 on the body of John Pyburn, schoolmaster, of Stantonbury, it was stated that deceased was addicted to drug-taking. He had told his landlady that he was formerly a chemist's assistant. The jury found that death was due to heart failure.

### An Effective Advertisement.

At Marlborough Street Police Court on April 15, Henry Morris Davidge, pharmaceutical chemist, was summoned for causing an obstruction in the public highway. The evidence was to the effect that a large crowd collected outside the defendant's shop in Shaftesbury Avenue, watching a mechanical figure of "Little Tich," which was being played as an advertisement for a remedy for rheumatism. The figure was set in motion in court for the benefit of the Magistrate, and created much amusement. The solicitor for the defendant said Mr. Davidge had no desire to cause obstruction, and had removed the figure from the window. The Magistrate held that causing a crowd to assemble in the way described was not a reasonable user of the highway, which was not meant for that kind of thing. He imposed a fine of 5*s.*, with 2*s.* costs.

### Spectacle-makers' Company.

The new syllabus of the examinations of this Company is now ready, and can be obtained on application to the Clerk, Col. T. Davies Sewell, 11 Temple House, Temple Avenue, London, E.C. The Preliminary examination is divided into five sections: (1) mathematics and arithmetic, (and 3) general and practical optics, written and *viva-voce*, (4) optical analysis of lenses, (5) frame-fitting and measurements. The Final examination is in two parts, the first dealing with visual optics and sight-testing, and the second with advanced optics and scientific instruments. The fees are three guineas for the Preliminary examination, and the same amount for each of the two divisions of the Final examination. Certain exemptions from parts of the Preliminary examination are referred to in the new syllabus, but no mention is made of the exemptions which were formerly granted to chemists and druggists and pharmaceutical chemists. The Interim Trades Council, which has been entrusted with the task of drawing up the new

syllabus, has four chemists among its fourteen members: Mr. G. Bennett (Vice-Chairman), Mr. F. W. Branson (Leeds), Mr. J. H. Cuff (Secretary of the Society of Chemist-Opticians), and Mr. A. Upson (Mayor of Maidenhead).

### Pharmacy Legislation.

We have received this week a statement in regard to a meeting of chemists held at the Exchange Hotel, Liverpool, on April 7, after those present had returned from Port Sunlight. It had been suggested that advantage might be taken of their presence to discuss pharmacy legislation, and accordingly Mr. George Weston, of Harrogate, was asked to preside over the gathering, among those present being the following:

Messrs. H. M. Johnson (Blackpool), W. A. Wynne (Rock Ferry), J. S. Autrey (Blackpool), L. Allen (Cheddar), B. Harris (Newport, Mon.), T. Baker (Oldham), J. Lees and C. Garside (Oldham), R. Shorrocks (Darwen), E. Hirst (Colne), T. H. Winstanley (Wigan), L. Wilson (Bath), W. J. Hallett (Bath), A. Purse (Sunderland), W. E. Smithies (Elland), J. Swire (Halifax), J. Fuge (Wakefield), R. F. Roper (Plymouth), C. Laverack (Malton), H. Millar (Cheltenham), S. Hewitt (Ashton-under-Lyne), A. B. Stocks (Hyde), C. Shacklady (Liverpool), F. C. Cooling (Birkenhead), W. W. Kemp (Liverpool), M. C. Mansbridge (Cheltenham), H. B. Lloyd (Cheltenham), J. Gabbitas (Beverley), W. J. Ash (Liverpool), L. S. Selli (Hull), Robert Cappell (Glasgow), A. E. Ellithorne (Birkenhead), H. G. Mitchell (Harrogate), W. Reid (Aberdeen), H. G. Williams (Sheffield), P. Carr (Sheffield), J. Appleton (Sheffield), J. E. Alcock (Sheffield), T. C. Milton (Exeter), H. Wippell Gadd (Exeter), S. R. Williams (Plymouth), W. Cummings (Dundee), J. C. Kidd (Manchester), F. G. Walton (Darlington), W. Parkinson (Driffield), T. Harley (Perth), S. J. Coley (Stroud), T. W. Townley (Kewick), J. C. Smail (Perth), E. O. Rowland (Edinburgh), J. Russell, A. Atkin (London), W. T. Colman, J. Gregory (Teesside Association), W. A. Walton (Hull), A. Atkinson (Harrogate), C. B. Southwell (Knaresborough), C. Herring (Edinburgh), H. Antcliffe (Sheffield), Campbell Connan (Inverness), A. M. Chisholm (Inverness), and David Lewis (Pendleton).

As a basis of discussion the following motion was proposed by Mr. J. P. Gilmour (Glasgow) and seconded by Mr. Roper (Plymouth):

That this meeting pledges itself to support by every practical means the Bill promoted by the Pharmaceutical Society, and to oppose such proposals of the Government Bill as are subversive of the public interest and safety and the statutory rights of chemists and druggists.

Messrs. J. Paterson (Aberdeen), W. S. Glass (Edinburgh), J. Brown (Burnley), F. Boothroyd (Blackpool), A. E. Breeze (Birkenhead), E. W. Lawrence (Knaresborough), and H. Jackson (Sheffield) spoke, and the motion was carried unanimously.

The general opinion was expressed that a mass meeting of chemists should be held annually, at which Pharmaceutical Councillors could attend to discuss subjects of vital interest to chemists in business.

### The Government Poisons Bill.

A meeting of the London and Provincial U.R. Druggists and Drug-stores' Association was held at Armfield's Hotel, South Place, London, E.C., on Thursday afternoon, April 23, for the purpose of considering the Government Poisons Bill. The meeting was called by Mr. W. J. Leggett, Organising Secretary of the Association, who stated that the business was of "vital importance to all U.R.D.s."

### Shop Assistants.

The annual conference of members of the National Union of Shop Assistants was held in Cardiff on Sunday and Monday, when nearly 200 delegates, representing 17,000 members, put in an appearance. Mr. T. B. Duncan, of Leeds, delivered the presidential address, in which he referred to the progress made in the movements for the abolition of the living-in system and of radius agreements, and expressed the hope that they would turn their attention to the establishment of a minimum wage. Considerable discussion took place on a motion from Birmingham in favour of compulsory closing. An amendment was proposed from London to limit the hours of labour in shops to sixty per week, it being contended that the public is against compulsory closing. Mr. J. A. Seddon, M.P., while in hearty sympathy with the principle of the amendment, urged the



delegates to give their support to Sir Charles Dilke's Bill, and eventually the amendment was rejected by 122 to thirty-four votes. A resolution condemning the living-in system was moved by Miss Howe, of London, who contended that if the system is an ideal one for women—which she emphatically asserted it is not—the fact that it enforces a state of celibacy on men ought to be a sufficient reason for its abolition, especially as it is calculated to lower wages. After a long discussion an amendment was carried by ninety-eight to thirty-one instructing the Executive Committee to support by definite trades-union action any demand made by a given number of members for the abolition of the living-in system. Other resolutions passed included the condemnation of the system of secret references and radius agreements, and urging the Labour members of Parliament to press forward the Character Note Bill and Restraint of Trades (Shops) Bill.

#### The Amalgamated Society of Dental Operators and Mechanics.

A meeting was held at the Matlock Town Hall on Saturday, April 18, Mr. L. Callender presiding. The Society has recently been registered under the Trades Union Act. The agenda of last week's meeting included such topics as discussion as to the legal position of the dental assistant, parliamentary representation, political and financial advantages under the Trades Union Act, etc. The convening notice stated:

It will doubtless have occurred to you that in the midst of dental legislation proposed and passed that the position of the dental assistant has been totally ignored. Now there are at present in Great Britain some 20,000 dental assistants who are not upon the register, but who are sufficiently qualified by apprenticeship and training to do all that is necessary in the public service to earn a livelihood by that means, and there is nothing in the present Dental Act to interfere with them doing so. But various legislation is contemplated; for instance, "The Dental and Medical Companies Practising Act," which is at present *sub judice*. . . . However much that may affect limited companies, it affects the assistant far more, inasmuch as in the event of that passing, or any similar Act, it will throw upon the market all the labour at present employed by the said companies and other practitioners, and thus give the medical men and surgeons the picking of the dental labour market at their own price. Hence the necessity of the above union, so that not only will you have some combination in your own interests as assistants, etc., but will have the Parliamentary help of the Labour and Trade Union section of the Government in contra-indication to the pseudo Trades Unionism of the dental and medical associations, and also the combined help of your fellow-workers in the mutual benefits of a union. We may mention that other associations appear to be prepared to utilise their accumulated funds only for the defence of men who are actually in practice, but who may or may not have the dental knowledge required by our association of assistants as far as we know being ineligible for election and unable to participate in any benefits.

The notice was signed by the secretary, Mr. P. Day, of Sherwood, Nottingham. Mr. Callender, the chairman of the meeting, has a score or so of dental branches in Derbyshire, Notts, etc., and he was supported by Mr. Lewis as vice-chairman. After the reading of the notice convening the meeting the President delivered an address, in the course of which he said for the last thirty years he had seriously been thinking what could be done so that the dental assistants who are thoroughly conversant with their profession could get proper recognition from the authorities. He had carefully weighed up a number of schemes, but one by one he put them aside as illogical or incompatible. But the latest project he had decided to support whole-heartedly, and he saw that the new Society now formed under trades unionism is the only way in which working dentists of the country can demand the recognition they are entitled to. Some men had not grasped the power such a Society would have and were not very keen in helping on the new movement, but he had had the good luck to mention it to Mr. Lewis, who became enthusiastic at once. The result of their deliberations had been the formation of the Society. Mr. Callender then reviewed the Dentists Act and said the legislation of the country had been warped in a manner foreign to the intentions of the Act when it was passed. Under those circumstances it is necessary that operatives and assistants should combine to protect themselves and to show those in authority

that they do not intend to sit calmly and have their living taken from them. They might think those were strong remarks to make because things seemed to be going on so quietly. He, however, was called as a special witness before the House of Lords Committee, and he had his eyes opened there, realising as he did the bitterness which exists among so-called qualified dentists against the men who do the work, and he realised that the slaves of the profession will become even worse off than they are now. Seeing that 20,000 men are affected by the action of 4,000 there should be no doubt whatever about the success of their movement once it is started. Mr. Callender then read them extracts from a speech by Mr. Law, which he said demonstrated what is the intention of the "qualified man" with regard to the workers. Many of the so-called qualified men are not, he added, qualified dentists, but are surgeons only. He would be greatly disappointed if the 20,000 men now in peril do not realise their power and win their case.

The rest of the proceedings was devoted to the discussion of rules and propaganda.

#### Private Meetings.

A further meeting of the creditors of Mr. Frank Cook, chemist, Warminster, has been held at the offices of Messrs. Francis Nicholls, White & Co., Old Jewry Chambers, E.C., when it was stated that the debtor's wife (who has private means) had signified her willingness to assist her husband and offered to purchase the business for about 680*l.*, which would be sufficient to pay the creditors 4*s.* in the pound. The offer was approved.

A meeting of the creditors of Mr. Haddon, trading as Glyn & Co., chemists, 159 East India Dock Road, London, E., has been held. It was said that the liabilities to trade creditors amounted to 350*l.*, while there were also partly secured creditors to the extent of 619*l.* Against this the assets consisted of stock estimated to produce 400*l.*, books debts valued at 10*l.*, and a quantity of household furniture. The debtor had been manager to Mr. Glyn-Jones, the previous owner of the business, and four years ago purchased it from him for 960*l.*, 100*l.* being for the lease and goodwill, and the balance in respect of stock, fixtures, and plant. He paid 100*l.* at the time and about 300*l.* since. A short time ago the debtor borrowed 35*l.* from Mr. Glyn-Jones, who held as security the lease of the premises, but it was doubtful whether this is of much value. The debtor was unable to make any offer. Mr. Glyn-Jones intimated that he would be prepared to withdraw his claim in respect of the balance of the purchase-money, and only to rank for the loan of 35*l.* After discussion it was decided to deal with the matter under a deed of assignment. Steps will be taken to dispose of the business as a going concern. (See also p. 631.)

#### Birmingham Notes.

Mr. Geo. E. Perry, F.C.S., is suffering from an attack of pneumonia.

The premises of Boots, Ltd., in Broad Street, Birmingham were broken into on April 15, two men being caught red-handed. They have since been committed for trial at the Assizes.

At King's Heath, Birmingham, on April 15, Christopher Winder (74), manufacturing chemist, of 197½ Hagley Road, Birmingham, was knocked down by a motor-car while cycling, and succumbed to the injuries sustained.

#### Deaths under Anæsthetics.

An inquest was held by Mr. John Troutbeck on April 21 at Westminster, on the body of a boy named Sharp, who died under anæsthesia while being operated on in Golden Square Hospital for an affection of the ear. Chloroform and ether was the anæsthetic used, given by the open method. The jury expressed the view that proper care had been taken by the hospital authorities, and the Coroner said that everyone who read the voluminous criticisms that were going on in the Press, both medical and lay, would see that there was an immense variety of opinion on the subject of anæsthetics. The function of coroners and juries was not to determine what was the best course for a doctor or an anæsthetist to pursue, but to satisfy themselves whether the cases were approached by persons who possessed the requisite skill, and whether death occurred in spite of their skill. It was obvious that they had to rely mainly on the evidence of persons whose conduct they were inquiring into,



and the only possible check they could have was that a *post-mortem* examination should be made by someone who was not connected with any particular hospital and the medical men there.

The City Coroner, Dr. F. J. Waldo, held an inquest on April 21 on the body of Mary Travers (42), who died in St. Bartholomew's Hospital during the performance of an operation for lung-trouble. Dr. Black, the house physician, said chloroform was the anæsthetic used, but it had nothing to do with the cause of death. Dr. Fisher, who made a *post-mortem* examination, endorsed Dr. Black's view. The Coroner said there were twenty-two medical and surgical examining bodies in Great Britain, and only eight of them obliged a man, before coming out as a fully fledged medical man, to produce any certificate showing that he was qualified to administer anæsthetics. The majority of these were English institutions; none were Irish, and there was only one Scotch. At St. Bartholomew's Hospital they selected two of the best men adapted for administering chloroform, and made them resident anæsthetists. A verdict of death from misadventure was returned.

#### Fined by Order.

At the Kingston-on-Thames Police Court on April 15, the case of Matthew Collinson, of Cambridge Road, Norbiton, summoned at the instance of the Royal College of Veterinary Surgeons, for using the description, "Canine Specialist. Dogs and Cats Treated for all Diseases," he not being a veterinary surgeon or holding the veterinary certificate of the Highland and Agricultural Society of Scotland, contrary to Section 17 of the Veterinary Surgeons Act, 1881, again came on for hearing. As the result of an appeal, the Divisional Court (*C. & D.*, April 11, p. 554) remitted the case back to the Justices, who now ordered a conviction, and imposed a fine of 1s., without costs.

### Welsh News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

#### Federation.

The movement initiated by Mr. A. Hagon, chemist, Cardiff, for the formation of a Federated Chamber of Trade seems in a fair way to collapse, the three strongest associated bodies—the bakers, grocers, and hairdressers—having withdrawn.

#### Dispensing for the Poor.

According to the annual report of the Newport Board of Guardians, just issued, the dispenser sent out 11,572 prescriptions, and the total spent for medicine and dressings (lint, wool, and bandages) was 78*l.* 5*s.* 2*d.* This works out at something less than a penny per prescription.

#### The Chemist and the Burglar.

Mr. Ivor Kenway, chemist and druggist, Abbey Road, Neath, had a severe struggle with a burglar on the evening of Good Friday. Shortly before midnight Miss Kenway, hearing a noise as of someone in the dining-room, called to her brother. Hurriedly slipping on some garments, Mr. Kenway went downstairs, where, on approaching the dining-room door, he came face to face with a burglar. The man immediately made a leap towards the window through which he had entered, but when halfway through he was seized by Mr. Kenway, who dragged him back into the room. Both then closed in a fierce struggle. Miss Kenway went into the street for help, and a man ran to the shop and assisted Mr. Kenway in overpowering the burglar, who was taken in charge by a policeman. On April 21 the Neath Magistrates fined the man, a collier, named Jones, 40*s.* and costs, or a month's imprisonment in the alternative, seeing that Mr. Kenway did not press the charge against the prisoner.

**SCAB ON POTATOES.**—An investigation by the Agricultural Department of the University of Leeds on the experimental farm at Garforth, where the soil is liable to produce scab, has resulted in proof that formalin prevents scab. Potatoes submerged for two hours in a solution of formalin 8 oz. to 15 gals. of water were planted, and the produce of the plot contained little scab. At the same time it was ascertained that a soil consisting of sawdust and peatmoss produced potatoes practically free from scab.

### Scotch News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

#### Aberdeen and the North.

Claims against the late Mr. James Paterson, chemist, Helmsdale, are to be lodged with Mr. Alfred N. Macauley, solicitor, Golspie.

At the half-yearly Licensing Court for the Deer district, Mr. A. Milne, chemist and druggist, Maud, was refused a grocer's licence, which he required for the sale of medicated wines.

Mr. David S. Allan, chemist and druggist, who has passed the Licence Examination of the Pharmaceutical Society of Ireland (as intimated in last week's *C. & D.*) served his apprenticeship with Messrs. Souter & Shepherd, College Street, and was for some time assistant to Mr. William J. Hay, Rose Street, Aberdeen.

#### Dundee.

Mr. Robert Smith, chemist and druggist, Ladybank, and formerly of Hilltown, Dundee, is opening a shop in High Street, Lochee.

Mr. Charles Kerr, pharmaceutical chemist, Nethergate, is recovering from the indisposition which has confined him to his house this month.

Mr. Alexander T. Reoch, chemist and druggist, is leaving the corner shop in Brook Street (new name for Scouringburn), so long associated with the drug-trade, and is opening larger premises on the opposite side of the street at Nos. 54 and 56. The shop which Mr. Reoch is leaving was established as a pharmacy by the late Mr. G. D. Mackay.

#### Edinburgh.

Mr. John Junor (formerly of Inverness), chemist and druggist, has purchased Mr. J. Blenkiron's business at 69 South Clerk Street.

Mr. James A. Moran, whose name occupies the premier position on the Empire Palace posters this week, was an apprentice with the late Mr. Gorrie, chemist, Minto Street.

Cochineal, etc., are still used extensively in certain districts at Easter for dyeing eggs, but a local chemist was somewhat surprised to receive an order for "a penny-worth of tartan dye."

On Tuesday forenoon a band of dissatisfied girls employed at the North British Rubber Works indulged in a brief strike, and marched along Prince's Street and the bridges with an improvised banner.

On Friday, April 17, while some boys were playing in the vicinity of Messrs. Harkness, Beaumont & Co.'s works at Junction Bridge, one of them, aged six, fell into the river adjoining the works. Mr. A. White, vanman to the firm, rescued him from his perilous position.

#### Business Changes.

Mr. Moffat, chemist and druggist, 162 Argyle Street, Glasgow, is giving up business shortly.

Mr. Milne is shortly opening a branch pharmacy in Manorfield, Great Western Road, Aberdeen.

Mr. Robert Dundas, chemist and druggist, has purchased Mr. Clark's business at 65 Dalry Road, Edinburgh.

Mr. Jas. Farquhar, principal assistant with Mr. Robert Hunter, chemist, Union Street, Aberdeen, will open a new pharmacy in Great Western Road, near Forrest Avenue, Aberdeen, in July.

#### Co-operative Trading.

The turnover in the drug department of the Dunfermline Co-operative Society, Ltd., during the first quarter of 1908 showed an increase of 25½ per cent.

The net sales in the four retail drug departments of the St. Cuthbert's Co-operative Association, Ltd., Edinburgh, during the past half-year amounted to 3,896*l.*, an increase of 570*l.* as compared with the previous half-year. In that period the profits of the departments amounted to 2,047*l.* gross and 1,235*l.* net.

#### Sale of Medicated Wines by Chemists.

At Paisley Burgh Licensing Court on April 14, Mr. R. T. McCowan, chemist and druggist, Millervale,

Glasgow Road, applied for a grocer's licence at 8 High Street. The applicant stated that he pledged his word that the licence would be used only for the sale of invalid and medicated wines put up in sealed bottles. There was a great demand for them, and in most cases they were prescribed by medical men. Hundreds held licences of this description in England, and a good many in Scotland. Many more in Scotland would apply for a licence of this nature were it not that they required to close on Sundays, but he had branch shops in which he could supply his customers with medicines. The licence was granted.

#### A Cancer-cure.

The Scotch dailies are giving considerable prominence to a "wonderful germicide" (the nature of which has not yet been disclosed) discovered by the Rev. John Ross, minister of Garnethill Established Church, Glasgow. Mr. Ross is at present in London for the purpose of having his discovery recognised by the Cancer Commission as a cure for cancer. The rev. gentleman's brother-in-law, the Rev. George Jack, of Edinburgh, is daily engaged at his residence in applying the remedy to a variety of diseases, "including cancer, lupus, appendicitis, eczema, rheumatism, asthma, and stomach troubles." In an interview with the representative of an Edinburgh paper Mr. Jack told the story of the discovery as follows:

His brother-in-law, the Rev. John Ross, was in his younger days a dispensing chemist in Garscube Road, Glasgow, in the shop of a relative of his own, a doctor. Mr. Ross was designed for the medical profession, but was attracted to the Church, and duly became an ordained minister of the Church of Scotland. His interest in medicine had not been stamped out, however, and in his laboratory he continued his beloved experiments through a period of years. His aim was the discovery of a germicide and its safe application to cancer and other troubles. He conducted experiments on himself, members of his family, and others in the circles in which he moved, and the results were so astounding that gradually his fame spread. So numerous were the calls made upon him that about eighteen months ago he persuaded his brother-in-law, the Rev. Mr. Jack, his assistant in research, to deal with cases in Edinburgh, and this arrangement has existed satisfactorily since.

It is claimed that all forms of infectious disease have been cured by means of the germicide, and recently it was reported that Sir Hector Cameron, Professor of Medicine in Glasgow University, had stated in classes and elsewhere that this particular discovery was the only medical treatment for cancer known to him which gave lasting benefit. The germicide is taken internally, and no charge is made for consultation.

### Irish News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

#### Pharmaceutical Society of Ireland.

The following passed at the recent Registered Druggist examination held in Dublin: Robert Connolly, Francis Boyle, William James Jenkins. Five candidates were rejected.

#### Personal.

Dr. Robert T. Herron, pharmaceutical chemist, the Medical Hall, Armagh, lectured last week at Waterford City Hall on "Tuberculosis: If Preventible, why not Prevent it?"

From the prize-list of the Queen's College, Belfast, we note that Mr. W. A. Berry, pharmaceutical chemist, has taken prizes in anatomy, practical anatomy, and physiology; and that Mr. S. E. A. Acheson, chemist and druggist, has taken a prize in materia medica, in which subject he also took the mid-session prize.

#### Foiled.

On the morning of April 17 a burglar attempted to enter the premises of Mr. Horatio Todd, pharmaceutical chemist, 72 Holywood Road, Belfast, but he was interrupted in his preparatory operations by an assistant, and made off.

"PREPARATIONS FOR ECZEMA" are the subject of the "British Medical Journal's" latest article on "The Composition of Secret Remedies," two pages of the issue of April 18 being devoted to them.

### French News.

(From the "C. & D." Paris Correspondent.)

**DEATH OF PROFESSOR CORNIL.**—The death of Professor Cornil, at the age of seventy-one, occurred on April 14, at Mentone, where he had been passing the winter. He was a member of the Paris Academy of Medicine, and was for many years a professor at the Paris Faculty of Medicine, where he occupied the chair of pathological anatomy, and devoted special attention to microscopical research in that branch. With his now well-known pupil, Dr. Chantemasse, he organised the bacteriological laboratory for Paris medical students. M. Cornil was one of the first men of science to appreciate the interest of the Pasteurian discoveries.

**THE LATE PIERRE CURIE.**—The "Revue des Mois" publishes the preface written by Mme. Pierre Curie for the scientific works of her late husband. She dwells on his devotion to science for its own sake, and to his preference for those studies "which, not being taken up by numerous investigators, permitted of peaceful, unprecipitated study." When radium and radio-activity were taken up by a number of *savants*, he did not like "the feverish production, the rapidity of publication, and was often tempted to turn to calmer regions of science, more propitious to mature reflection. He specially desired to resume his studies on the symmetry of crystalline compounds" ("milieux cristallisés").

**THE EMPLOYERS' LIABILITY ACT.**—The Mixed Committee, comprising delegates representing French pharmacists, doctors, trade associations, trade unions, and assurance companies, which is studying the subject of medical and pharmaceutical expenses in cases arising under the Employers' Liability Act, has met at the Ministry of Labour and discussed the subject at some length. It was finally voted *nem. con.* that the best means of preventing abusive charges on employers, while leaving the injured workman full latitude to choose his own doctor and pharmacist, is to draw up a tariff of normal costs. A sub-committee is to study the subject on this basis during the Parliamentary vacation.

**M. LEBEAU**, the new Professor of Toxicology at the Paris Superior School of Pharmacy, in which he succeeds M. Béhal, is thirty-nine years of age, and a native of Boiscommun (Loiret). He studied at the Paris School of Physics and Chemistry, where he took his degrees of licentiate and doctor of physical science. In 1890 he became preparator of physics and chemistry at the Paris School of Pharmacy, and in 1899, after having taken his pharmaceutical diploma, was appointed assistant professor. In 1906 he lectured at the Faculty of Sciences on "Inorganic Chemistry." He is a "Laureate" (prize-winner) of the Paris Society of Pharmacy (1899), of the Institute (Bordin prize, 1905), and of the Royal Belgian Academy. In 1895 he received a violet ribbon of Officier d'Académie, in 1900 the rosette of Officier of Public Instruction.

**THE LATE M. LANDRIN.**—At this month's meeting of the Paris Society of Pharmacy the President (M. Schmidt) referred to the death of M. Edouard Landrin, who was President of the Society in 1904. M. Schmidt mentioned that he had attended the funeral and made a short valedictory address at the grave. He further read a letter from M. P. Landrin, intimating that his father had left 10,000f. (400l.), free of legacy-duty, the interest of which is to found a triennial prize, to be awarded to the French pharmacist or pharmacy student who shall present to the Society the best work of research, on new defined principles, on the acids, alkaloids, glucosides, etc., of vegetable drugs. A vote of profound sympathy was passed by the Society to Mme. Landrin, the widow, and her family, as well as thanks for the legacy. M. Edouard Landrin passed the early years of his career as professor of chemistry, and at the age of thirty-two (in 1879) he joined the firm of Paris manufacturing chemists well known as Darrasse Frères & Landrin, of which he remained a partner until 1902, when he started a new business in partnership with his son.

**RADIOGRAPHY OPERATORS.**—Whether radiography should be monopolised by the medical profession is just now a burning question in France. The decision of the Assistance Publique (Parisian Poor-law administration) to employ



doctors as radiographers was condemned by resolution passed at a meeting of trade unionists held at the Bourse de Travail. After listening to M. Cordumoulin (head of the principal radiographic laboratory of the Parisian hospitals) and other technical speakers, the meeting voted that these examinations should be made by specially trained scientists, not necessarily belonging to the medical profession, and that the experts who act as arbitrators in disputed cases should be chosen from outside the medical profession. An attempt was made some time ago to obtain the monopoly of radiography in France for pharmacists, but it was not successful, although in some localities they act as operators.

### NOTES FROM NANTES.

By a Travelling Correspondent.

PHARMACY of the cutting type has still its headquarters in the rue d'Orléans here. The latest telegraphic news communicated by the press agencies is shown in the windows of these enterprising establishments, headed and followed by a notice of some leading speciality offered. But business in Nantes, as in all progressive cities, moves Westward, and the Pharmacie Principale in the rue du Calvaire (this is now the great shopping thoroughfare) boldly announces on its frontage that it offers the "most reduced prices in Nantes." The window-display is remarkably eclectic and business-like for a French *officine*, and this establishment specialises "Herboristerie" and "Orthopédie" as well as pure pharmacy. The younger generation can hardly gaze dry-mouthed at the piles of penny-an-ounce pate—guimauve, lichen, and jujube—while bolder and more portly passers-by are attracted by an international exhibition of hair-restorers and toilet-requisites—the English "Melrose," the German "Hahn," the French "Xerol," etc.—or by "Mexican Tea" to reduce obesity. A model limb decorated with varicose veins draws due attention to the fact that elastic stockings may be procured from 3.75f. upwards, while "bandages" (trusses) are marked from 1.75f. The "Sirop de l'Enfant Jésus" for children's ailments is another attractive article. Brittany being, as everyone knows, the most Catholic and most prolific of all the French provinces, this is a good seller. Cod-liver oil with hypophosphites at 2.25f. per litre is another leading line. A captious critic might object to a show of extracts for producing artificial Cognac and other strong liquors, but fairness compels one to add that the "Coza" drink-cure is shown close by. This remarkable window is framed in a handsome ceramic border, of which the *leit-motiv* is digitalis.

### India and the East.

MR. ANDREW HOGARTH WILSON has become a partner in the Simla business of Messrs. Frank Bliss & Co., chemists, Simla and Lahore.

DR. C. SHULTEN, the Calcutta analyst, has extended his business to Kamptee, where he has taken over the consulting and analytical practice of Dr. V. G. Spiera.

THIBETAN DRUGS.—A number of Thibetan dealers, bringing with them cartloads of aconite and other Himalayan drugs, as well as a large quantity of musk, reached Calcutta at the end of March.

MR. NORMAN S. RUDOLPH, M.Sc. (Victoria), F.I.C., general manager in India for Messrs. Parke, Davis & Co., has been appointed Professor of Applied Chemistry at the Indian Institute of Science, Bangalore.

THE ANTISEPTIC GANGES.—An article in the current number of the "Indian Medical Gazette" gives prominence to a discovery that the water of the River Ganges is hostile to the growth of the cholera-microbe, owing to the presence of an antiseptic that has the power of destroying the microbe.

AN EXCELLENT MONOGRAPH on lac, by Mr. G. P. Stebbing, F.L.S., F.Z.S., F.E.S., Imperial Forest Zoologist, has been published at the Government of India Press, Calcutta, and will be read with profit by those interested in the shellac trade. The author deals at length with the lac insect (*Tachardia lacca*), its life-history, propagation, and selection. He discusses his subject in detail, and from practically every point of view.

THE COCONUT BEETLE.—This beetle is becoming one of the greatest pests in the East. In Rangoon the total disappearance of the coconut palm is predicted; while in Ceylon special regulations have just been passed in connection with the Insect Pest and Quarantine Ordinance.

The chemist who can produce a preventive against the attacks of this formidable beetle, or can rid the palms of these sap-destroying insects, will have done a service to the East and incidentally made a fortune for himself.

### Australasian News.

The fullest information regarding the Australasian drug-trade and pharmacy is given in "The Chemist and Druggist of Australasia," copies of which can be obtained at 6d. each, post free, from the office of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

Note.—"The Chemist and Druggist" is regularly supplied by order to all the members of the following, among other societies:

Central Pharmaceutical Association, N.Z.  
Otago Pharmaceutical Association, N.Z.  
Pharmaceutical Society of New South Wales.  
Pharmaceutical Society of Queensland.  
Pharmaceutical Society of South Australia.  
Pharmaceutical Society of Tasmania.  
Pharmaceutical Society of Western Australia.

### Commonwealth.

OPIMUM TRAFFIC.—Dr. Wollaston, Comptroller-General of Customs, in a report on the smuggling of opium, expresses the opinion that the prohibition of the importation of opium has not prevented the importation, but has deprived the Department of the revenue of about 60,000l. a year formerly collected. Chinese are paying 5l. for a half-pound tin, and one smoke costs half-a-crown. Others besides Chinese have been tempted to enter the enormously profitable trade of smuggling, and it is believed that an organised system has been established of importing it from Europe and America as well as direct from China. He recommends additional legislation to make the mere possession of opium by any person on arrival in Australian jurisdiction a penal offence, and State legislation enacting the same thing for possession within a State or the use of opium for smoking. Such legislation is in force in Victoria.

### New South Wales.

THE PHARMACEUTICAL SOCIETY (N.S.W.).—The annual general meeting was held on March 27, when Mr. H. D. B. Cox moved the following resolutions: "(1) That in view of impending legislation and the present conditions of the practice of pharmacy, the needs of the situation will be met only by an Association of Pharmacists that is thoroughly representative and business-minded. (2) That it be an instruction from this meeting to the Council to take into consideration without delay the altering of the Articles of Association to give effect to the foregoing resolution by (a) making eligible for membership any registered pharmacist, (b) giving prominence to the commercial and economic interests of pharmacy."

FRANCO-BRITISH EXHIBIT.—Messrs. Hannam & Co., 134 Castlereagh Street, Sydney, have manufactured for display in the New South Wales Court at the Franco-British Exhibition to be held in London in May a complete operating-theatre and sterilising-room. The Intelligence Department of the New South Wales Government asked for this display to show that such work could be carried out wholly in Australia, and be not only thoroughly up-to-date in comparison with European manufactures, but show many novel and ingenious points.

### Victoria.

THE RHODES SCHOLAR elected on March 4 is Mr. P. R. Le Couteur, son of Mr. G. T. Le Couteur, chemist, formerly of Middle Park, then of Warrnambool, and now of Glenferrie. From 1900 Mr. P. R. Le Couteur has had a career of continued success. He was dux of the Warrnambool Academy in that year and matriculated, being then only fourteen. In 1903 he obtained a major scholarship at the Queen's College for four years. He took first-class honours in the school of logic and philosophy in his second year, first-class honours in the final honours examination, and won the Hastie scholarship in logic and philosophy. Last year he passed his first year medicine, but he intends to take up the Arts course at Oxford. He is one of four who have gained the University triple blue in cricket, football, and tennis.

## Canadian News.

(From the "C. & D." Correspondent.)

**THE SALE OF COCAINE.**—On April 7 Dr. Smellie, M.P., introduced into the Ontario Legislature an amendment to the Pharmacy Act, which provides that no druggist can sell cocaine except on a physician's prescription.

**THE PROPRIETARY MEDICINE BILL.**—In the Canadian House of Commons on April 6, the Hon. William Templeman, Minister of Inland Revenue, introduced his resolution regarding the regulation and sale of proprietary and patent medicines, notice of which was given on March 10 (see *C. & D.*, March 28, p. 472). Before the resolution was adopted, the Hon. Mr. Templeman said it was generally conceded that there was some need for legislation on that subject, and that it should be of a Dominion character. Two Sessions ago a Committee of the House of Commons took volumes of evidence, and reported the necessity of legislation which would restrict to some extent the sale of patent medicines. Last Session a Bill was prepared, but was held over. It was of a rather drastic character, and after numerous interviews with representatives of the wholesale and retail trade and of the manufacturers of proprietary medicines, it was found very difficult to frame legislation which would safeguard the public interests without at the same time committing an injustice to the business interests. Mr. Templeman continued:

The new Bill proposes to define what constitutes a proprietary medicine and will exempt from its operation all patent or proprietary medicines which bear a label giving a formula of the remedy, thereby giving publicity to its various ingredients. Anyone can put up any medicine for sale, provided he publishes the formula on the bottle. The Bill provides also that the use of cocaine shall be absolutely prohibited. The use of an unusual quantity of alcohol is also prohibited. Another clause provides for naming on the label any deleterious drug which the medicine may contain, and a list of deleterious drugs is given in the schedule. The Bill does not go as far as some gentlemen would like, but I thought it better to go slow and enact some law and have it in operation a year or two, in order to ascertain how it works, and then later amendments may be made.

The full details of the Bill will not be known for some time.

## South African News.

(From the "C. & D." Correspondents.)

Note.—"The Chemist and Druggist" is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz.:

South African Pharmaceutical Association.  
Pharmaceutical Society of Cape Colony.  
Natal Pharmaceutical Society.  
Transvaal Pharmaceutical Society.  
Rhodesia Pharmaceutical Society.  
Northern District Chemists' Association.  
Pharmaceutical Society of Orange River Colony.

### Natal.

**NATAL PHARMACEUTICAL SOCIETY.**—The usual monthly meeting of the Society was held in the premises of Mr. G. Stuart-Jones, of West Street, Durban, on March 25, Mr. Fleming Johnston (President) in the chair. The members present included Messrs. Irving, Firth, Charlton, Hamlyn, Edwards, Road-Knight, Jones, Read, and Elgie (Hon. Secretary). Chief interest was centred in a discussion relative to unqualified managers of branch businesses, and it was resolved on the motion of Mr. Read, seconded by Mr. Jones,

that in the opinion of the Natal Pharmaceutical Society, in every branch chemist's shop owned by a registered chemist a registered chemist must be employed as manager or assistant, and that this resolution be sent to the Natal Pharmacy Board, with the recommendation that it should be included in the proposed amendments to the Medical and Pharmacy Act.

The bridge-drive recently held was so successful that similar entertainments will be held under the auspices of the Society, but they will be managed quite distinct from

it. Messrs. G. Stuart-Jones, Anderson, Johnston, and Elgie were appointed a special committee to make arrangements.—At the next regular meeting Mr. Hamlyn will move that representations be made to the Durban Corporation for a specially reduced charge for telephones used by chemists.—Previous meetings of the Society have been held at Messrs. Read & Champion's Buildings, Mr. Champion giving the room, and the Society's appreciation of Mr. Champion's kindness was placed on record by order of the meeting.

### Orange River Colony.

**ERADICATION OF SCAB.**—One of the worst pests the South African farmer has to contend with is scab in sheep, and it is gratifying to note the remarks made by the Press of South Africa upon the satisfactory manner in which the Orange River Colony has dealt with it. The Crown Colony Government passed an Ordinance compelling simultaneous dipping of flocks and notification of scab. A system of stock-inspectors was inaugurated, the appointments being made among the farmers themselves to a large extent, and the chief inspector, Mr. Morgan, carried out a large number of experiments in the attempt to discover a cheap and reliable dip, in which he obtained the co-operation of the Government analyst, Dr. Targett-Adams. The result of his investigations was the recommending by the Government of the use of caustic soda and sulphur made up as follows:

Sublimed sulphur 20 lb. is mixed to a cream with water and caustic soda 5 lb. stirred into it slowly; in half an hour add the balance of 100 gals. of water. The solution must not be boiled, and it is recommended that not more than this quantity be prepared at one mixing.

The advantage claimed for this dip over the well-known lime and sulphur is that the soda has a softening action upon the skin, which enables the solution to penetrate and kill the parasite, whereas the effect of lime is to harden the skin. It is well known that the Dutch farmer in South Africa will not adhere to directions given for the use of such articles as sheep-dip. This was shown in the recent locust campaign, when practically every case of arsenical poisoning from the locust-spray was proved to be the result of the farmer making the arsenical solution of greater strength than ordered. Similar cases have occurred with the soda-sulphur dip; but in the hands of those who use it properly the most satisfactory results are obtained. An enterprising Durban firm have taken advantage of the opportunity to market a small sack containing the ingredients with directions for use, the caustic soda being in the form in which it is to be found in almost every general store throughout South Africa—viz., a granular powder guaranteed 99 per cent., packed in a lever-lid tin, with directions for use in English and Dutch.

**PETROLEUM**—It is reported that petroleum has been discovered over a large slice of the eastern portion of the Colony and bordering on Basutoland. Our correspondent has inspected the samples of ozokerite and rock impregnated with crude shale oil, which have every appearance of genuineness. That petroleum exists in the Orange River Colony is an undoubted fact. Our correspondent more than a year ago handled a specimen of about a quart obtained on the town commonage of Bloemfontein by a local syndicate, but it is a question whether it exists in paying quantities. Old inhabitants remark that when the Free State Boers returned from the Basuto War many years ago they spoke of having noticed the smell of petroleum at various places where they had laagered, in the districts where the latest discoveries have been made.

### Rhodesia.

**PHARMACEUTICAL SOCIETY OF RHODESIA.**—A special meeting of the Executive of this Society was held at Bulawayo on March 21, for the purpose of making suggestions for the new Customs tariff. After a long and interesting discussion, the Secretary was instructed to forward the following

RECOMMENDATIONS OF THE PHARMACEUTICAL SOCIETY OF RHODESIA IN REVISING CUSTOMS TARIFF.

BOVIL, BRAND'S ESSENCES, AND ALL INVALID FOODS IN CONCENTRATED FORM.—These, no similar products of recognised value being prepared in South Africa, should either be duty free or subject to only the lowest *ad valorem* duty. In



mining camps and isolated districts, where fresh invalid foods cannot be obtained, these are invaluable, and their cost ought not to be materially increased by heavy duties. The present *ad valorem* duty of 25 per cent. is almost prohibitive.

**PATENT FOODS FOR INFANTS AND INVALIDS.**—The bulk of these are scientific preparations which are not likely to be prepared in South Africa for generations to come. They are particularly recommended by the medical profession for delicate children, where foods produced locally cannot be assimilated. Such foods, therefore, should be duty free, and to place a duty on them is practically to put a tax on population.

**DISINFECTANTS.**—These should be free in small containers as well as in bulk. The uses to which they are put are precisely the same, and this being the destruction of disease germs, their price should not be increased by the imposition of duties in any form.

**ACIDS, NITRIC, SULPHURIC, HYDROCHLORIC, AND LIQUID AMMONIA.**—These being largely used for industrial purposes, and only manufactured in parts of South Africa from which they cannot be economically transported to Rhodesia, should be duty free.

**MERCURY AND ALL CHEMICALS USED FOR INDUSTRIAL PURPOSES AND ADMITTED FREE IN BULK** should also be duty free when packed in small containers. As the containers are not manufactured in South Africa, there is no object in importing in bulk and splitting up when the small containers could be imported full at the same rate of duty. The placing of a duty on small packages and allowing bulk in free is in reality taxing the small consumer, but not the large.

**OILS, ESSENTIAL.**—These should be subject to the same duty as "Drugs," being used in the manufacture of many medicinal tinctures, etc.

**MEDICINAL PREPARATIONS (PROPRIETARY) OF SECRET FORMULÆ, INCLUDING TOILET-PREPARATIONS,** whether spirituous or otherwise, should be charged at an *ad valorem* duty. The amount of spirit in these would not be of any material advantage to any State in which such preparations might be manufactured in South Africa. Under the present tariff manufacturers have in many cases altered the formulæ of their preparations to evade paying spirit-duty, and in other cases duty on such preparations when calculated as "Spirituous" is not nearly as much as it would be if reckoned on the *ad valorem* basis. A uniform *ad valorem* duty is much simpler and more satisfactory in every way.

**MEDICINAL PREPARATIONS ("SPIRITUOUS"), SUCH AS SPIRITS, SYRUPS, TINCTURES, ESSENCES, ETC., OF KNOWN FORMULÆ.**—With the exception of those specially specified may remain as at present, under 36b. Should it, however, be considered to be to the advantage of South Africa as a whole to return to the *ad valorem* rate in force previous to the introduction of the present tariff, we should have no objection. On the other hand, if the spirit-producing Colonies agree to abolish the present Excise levied on spirit for manufacturing purposes, and to have absolute inter-Colonial Free Trade in spirituous medicinal preparations of Colonial manufacture, this would have our support. This should not in any way affect the present right of Rhodesia to import alcohol from outside the Union, and to get the whole of the duty paid on same refunded when denatured for manufacturing purposes.

**AROMATIC SPIRIT OF AMMONIA B.P. AND SPIRIT OF NITROUS ETHER B.P.**—These preparations can be more advantageously manufactured in Great Britain than in South Africa, and we recommend they be admitted from the United Kingdom at a low *ad valorem* duty.

**MEDICATED WINES (PROPRIETARY).**—These should be charged as medicinal preparations at an *ad valorem* duty only.

**MEDICATED WINES B.P.**—To be classified as drugs at an *ad valorem* duty.

**DRUGS, CHEMICALS, AND ALL MEDICINAL PREPARATIONS, INCLUDING PILLS, TABLOIDS, TABLETS, AND PALATINOIDS, OF KNOWN COMPOSITION,** should be charged at the lowest *ad valorem* rate. Any duty which tends to increase the price of medicine is practically a tax on the sick man. It need hardly be pointed out that to tax the individual when he is sick is to tax him when he is least well able to pay.

**TOILET-SOAPS.**—These being a necessity and not a luxury should be treated as such in the Customs tariff, and the lowest *ad valorem* duty levied. The high duty on the more expensive toilet-soaps has to a very large extent destroyed the demand, so that revenue actually suffers under the present system of high rates.

**ZINC SHAVINGS.**—These being used for the same purpose as zinc discs should be free.

**PROSPECTING-PANS** should be free.

**FILTER-PAPERS AND ALL ASSAY MATERIALS,** whether consumed in process of assaying or not, should be on the free list. There is no difference in principle between admitting "Assay Apparatus" and "Assay Materials" as free. A tax on either would be a tax on the mining industry.

**METHYLATED SPIRIT.**—This being used almost entirely as a fuel, the Society strongly recommends its remaining on the free list as at present.

The recommendations were signed by Mr. W. J. Bickle (President) and Mr. Joseph H. Needham (Secretary) on behalf of the Society.

### Transvaal.

BUSINESS in the Transvaal still remains very quiet.

**MESSRS. PETERSEN, LTD.,** wholesale chemists, Johannesburg, have acquired the pharmacy in Beit Street, Doornfontein, Johannesburg, lately conducted by Mr. Jas. W. White. Mr. F. W. Wileman, formerly of Smith, Rive & Co., Ltd., has charge of the establishment.

**MR. W. H. LUCRAFT** has opened a pharmacy at Potgietersrust. Mr. Lucraft is an old resident in South Africa, and was for a number of years manager of the establishment of Messrs. Philips & Co., Ltd., chemists, Pretoria, after which he was for some time in business for himself in the Transvaal capital.

## Colonial and Foreign News.

**MUNICH PHARMACISTS' HAUS.**—The pharmacists of Munich have in a few months collected 100,000m., with which to form a company whose object is to establish a clubhouse for the members.

**SPANISH OLIVE OIL.**—The exports of olive oil from Spain show a considerable falling-off during 1907, the figures for the eleven months ending November being 9,648,145 kilos., against 17,689,551 kilos. in 1906 and 32,044,525 kilos. in 1905.

**GOOD FOR THE CHEMIST.**—The Saxon Government has sanctioned the opening of a pharmacy in the village of Gelenau, subject to the condition that the parish should make good to the owner the difference required to assure him an income of 225l. a year, should the business not bring in this amount. The condition was accepted, and the parish proposes to erect the premises.

**GERMAN CHEMICAL AMALGAMATION.**—The "Frankfurter Zeit." reports an amalgamation between Meister, Lucius & Brüning, of Höchst, Cassella & Co., and Kalle & Co., of Biebrich-a.-Rh. The capital of the latter, amounting to four million marks, is to be transferred to the Höchst works in consideration of a corresponding number of shares. The Höchst works intend, moreover, to again raise their capital, and new shares are to be offered to the shareholders at the relatively low rate of 150 per cent.

**ASSISTANTS' PROGRESS.**—The Union of German Assistant (Serving) Pharmacists has just constituted a Savings and Credit Co-operative Society which has been registered with limited liability and headquarters at Nuremberg. The amount of the shares and extent of the liability has been fixed at 25l. each (500m.), and a total of 15,000l. has already been subscribed. It is stated that the principal object of the Society is to render financial support to pharmacists in connection with the taking over or redemption of existing pharmacies, which are based upon the principle of personal concessions. Messrs. Sparrer and Schulz, of Nuremberg, have been elected as the Council, with Dr. Strauss, Attorney, as President of the Board of Supervision.

**CHEMICAL TRADE.**—An inquiry addressed to a large German chemical factory has elicited the reply that the sale of pharmaceutical products during 1907 was satisfactory, and the turnover in the most important countries increased, but the prices still experienced a downward tendency. The prevalence of influenza has caused the demand for pharmaceutical preparations to advance. The effects of the new treaties of commerce have proved disadvantageous to the chemical industry. It is also stated that the new English Patent Act represents substantial injury to German industry by the further splitting up or division of manufacturing, but it is contended that England will also derive no considerable profit from it. A second reference to the situation of business is contained in the report for 1907 of the Chemische Fabrik vor. Goldenberg, Geromont & Co., of Winkel, Rheingau. The report states that the sales of tartaric acid and the realised profits in that year declined through the mutual sales of the German factories, and also on account of the unfavourable summer.



## Contracts.

The following contracts for medicines and other druggists' produce have been agreed to :

East Ham Corporation has accepted the following tenders for annual supplies : Gibbs' Fertilisers, Ltd. : Aluminic and ferrous sulphate, 2*l.* 2*s.* 6*d.* per ton. Messrs. Burgoyne, Burbidges & Co. : Crushed linseed (with oil), 2*s.* 1*d.* per 14 lb. ; p. glycyrrhizæ co. B.P., 3½*d.* per lb. ; ung. acid. boric. B.P., 6½*d.* ; acid. boric. xtl., 3½*d.* ; ol. olivæ, 4*s.* per gal. ; lin. camph. B.P., 1½*d.* per lb. ; liq. ferri perchlor. fort. B.P., 2*d.* ; vin. ipecac., 1*s.* 3*d.* ; ol. ricini opt. (Italian), 5*d.* ; zinci oxidum (Hubbuck's), 1*s.* 0½*d.* ; ung. hydrarg. ammon. B.P., 9½*d.* per gal. ; ol. menth. pip. (Hotchkiss), 10*d.* per oz. ; lanoline and cold-cream (equal parts), 9*d.* per lb. ; tabloid sodii salicyl. (physiologically pure), gr. 5 (B. W. & Co.), 1*s.* 2½*d.* per bottle of 100 ; tabloid pulv. ipecac co., gr. 5 (B. W. & Co.) (not coated), 1*s.* 2½*d.* ; soloid hyd. perchlor., gr. 8.75 (B. W. & Co.), 1*s.* 2½*d.* ; pep-tonising powders (Fairchild), 12*s.* 9*d.* per doz. boxes ; acid. oxalic., 5*d.* per lb. ; ext. cascara sag. liq. B.P., 11½*d.* per lb. ; glycerin and belladonna (Lond. Hosp. Phar.), 1*s.* 10*d.* per lb. ; cod-liver oil (best Norwegian), 3*s.* per gal. ; iodoform. pulv., 11*s.* 7½*d.* per lb. ; potass. permanganas, 5*d.* per lb. ; pulv. amyli. B.P., 2*d.* ; syr. ferri phosph. co. (Parrish), 3½*d.* ; eucalyptus oil B.P., 1*s.* 3*d.* per lb. Mr. K. Dack : Pulv. acid. boric., 3½*d.* per lb. ; vaseline (Chesebrough), 10*d.* per 1-lb. tin ; spt. vini meth., 2*s.* 2*d.* per gal. ; liq. strychninæ B.P., 1*s.* 3*d.* per lb. ; collodium flexile B.P., 2*s.* 10½*d.* ; tr. benzoin. co. B.P., 2*s.* 6*d.* ; tr. guaiaci recens (Lond. Hosp. Phar.), 2*s.* 9*d.* per gal. ; bismuth. carb., 7*s.* 3*d.* per lb. ; tabloid phenacetin. co., gr. 5 (B. W. & Co.) (not coated), 1*s.* 5*d.* per bottle of 100 ; tabloid casc. et gentian co. (B. W. & Co.) (coated), 1*s.* 5*d.* ; tabloid quinina sulph., gr. 2 (B. W. & Co.) (coated), 8*d.* ; pure chloroform (ex S.V.R.) (Duncan, Flockhart & Co.), 1*s.* 8*d.* per ½-lb. bottle ; chloroform B.P., 1*s.* 7*d.* per lb. ; ung. zinci B.P., 7½*d.* ; glycerin B.P. (sp. gr. 1.260), 7*d.* ; liq. calcis B.P., 3*d.* per gal. ; pulv. seidlitz, B.P., 3½*d.* per doz. ; Jeyes' 10-per-cent. cyllin soap (1-lb. bars), 14*s.* per ½-cwt. ; haustus bromochloral. co. conc. (Lond. Hosp. Phar.), 1*s.* 7*d.* per lb. ; chemists' sundries—wood-wool, 7*d.* per lb. ; nail-brushes (wood back) five-row bristle, 3*s.* per doz. ; feeding-cups (Red Cross), about 3½ in. diam., 4*s.* 6*d.* per doz. ; clinical thermometers, 30 sec., magnifying index (English make), 15*s.* and 16*s.* per doz. ; 4-oz. bottles, with corks, 6*d.* per doz. ; 8-oz. ditto, 7*d.* ; fly-papers (Tanglefoot), 4*s.* per gross ; bottle-brushes, 6*d.* per doz. ; disinfectants—soluble creosote, 1*l.* 7*s.* per 40 gals. ; cyllin, 2*l.* per 10 gals. Hospitals and General Contracts Co., Ltd. : Chemists' sundries—absorbent wool, 6½*d.* per lb. ; boric lint (40 to 50 per cent.), 9½*d.* ; lint (hospital), 1*s.* 0½*d.* ; tow (fine), 2½*d.* ; throat-brushes, 1*s.* per doz. ; feeding-cups (Red Cross), about 4 in. diam., 5*s.* per doz. ; plain gauze, 4½*d.* per 6 yds. ; cyanide gauze, 3 per cent., 5½*d.* ; iodoform gauze (ribbon selvage), ½ in. wide, 4½*d.* ; bandages (water-dressing), open-wove, 6 yds. long, 10*d.* per doz. ; waterproof cambric (Billroth's), 9*d.* per yd. ; minim measures (unstamped), 1 dr. 3*d.* each, 2 dr. 4*d.* ; 2-oz. vials, with corks, 4*d.* per doz. ; rubber catheters (Jacques), Nos. 8 and 10, solid ends, 4*s.* 6*d.* ; hair-brushes (wood, screw backs), yellow bristle, 2*s.* each ; Higginson's syringes (seamless red rubber), 1*s.* 3*d.* each ; dressing-combs (metal), 5½*d.* ; small-tooth combs (xylonite), 2½ in. long, 2*s.* 6*d.* per doz. ; ball syringes, 4-oz., black rubber, bone nozzle, 1*s.* 6*d.* each ; ditto 6-oz., 1*s.* 9*d.* ; glass syringes, straight, 2-oz., 2*s.* per doz. ; foot-warmers (earthenware), 2-pint, 1*s.* 3*d.* each ; plaster, strapping (Leslie's), on brown holland, 6 in. wide, 2*s.* 3*d.* per 6-yd. tin ; rubber plaster (Mead's), 10-yd. spools, ½ in. wide, 1*s.* each ; ice-bags (rubber conical, with boxwood cap), 1*s.* 6*d.* ; bedpans (round), small size, 1*s.* 6*d.* ; ditto, medium size, 1*s.* 9*d.* ; slipper bedpans, small size, 1*s.* 9*d.* ; ditto, medium size, 2*s.* ; medicine-measures (earthenware), 2*s.* 6*d.* per doz. ; glass measures (unstamped), 10-oz. 6*d.* each, 20-oz. 6*d.* Messrs. Adcock, Easton & Co. : Carbolic powder, 1*l.* 19*s.* 11*d.* per ton. The Sanitas Co., Ltd. : Crude sanitas, 1*l.* 15*s.* per 10 gals. ; formalin, 2*l.* 10*s.* per 10 gals.

Finchley District Council.—Messrs. Adcock, Easton & Co., for disinfectants.

Hackney Guardians.—Messrs. R. Wheen & Sons, Deptford, for soap at 69*l.* 7*s.* 7*d.*

Hendon District Council.—Jeyes' Sanitary Compounds Co., for disinfectants ; Messrs. Peter Spence & Sons, for chemicals.

Hertford and Ware Joint Hospital Board.—Mr. J. R. Stanley Lewis, chemist and druggist, Ware, for medical sundries.

Newport (Mon.) Board of Guardians.—Southall Bros. & Barclay, Ltd., Birmingham, for drugs, surgical dressings, etc., for a year.

Swindon and District Hospital Board.—Mr. Waldegrave, for chemist's goods for six months.

Swindon Board of Guardians.—Messrs. Green & Co., to be chemists to the workhouse for six months.

Waterloo Urban Council.—Killgerm Co., Cleckheaton, for disinfectants.

Westminster Guardians.—John Knight, Ltd., Silvertown, for soap at 63*l.*

Whitby Urban Council.—Mr. F. Falkingsbridge, chemist and druggist, Baxter Gate, to be chemist to the electrical department for a year. Masons, Ltd., to be chemists to the general and harbour department for a similar period.

## Legal Reports.

### Dentists Act, 1878.

#### USING THE TITLE.

IN Glasgow Sheriff Court on April 13, before Sheriff Scott Moncrieff, the British Dental Association brought an action against James Wilkinson, Govan, for contravention of the Dentists Act, 1878, in so far as he not being registered under the Act and not being a legally qualified medical practitioner, did use the name or title of dentist by displaying a signboard on the outside of the premises occupied by him at 264 Paisley Road, West Govan, with the words "Dr. Wilkinson, Registered Surgeon Dentist, Brisbane, Q.A." After hearing evidence the Sheriff imposed a penalty of 10*l.*, with 3*l.* of expenses.

### Spirits Act, 1880.

#### MINERALISING INDUSTRIAL METHYLATED SPIRIT.

AT Leicester Borough Police Court on April 15, Edwin Henry Butler, Humberstone Gate, was summoned for (being a person authorised to sell methylated spirit by retail) between December 29, 1907, and January 31, 1908, selling, and having in his possession for sale, methylated spirit other than mineralised—namely, industrial methylated spirit—contrary to the statutes, thereby incurring a fine of 50*l.*—Mr. Shaw (Somerset House) appeared for the prosecution, and Mr. Bigge for the defendant.

Mr. Shaw said Mr. Butler and his partner, Mr. MacDonald, carry on business as manufacturing chemists at 93 Humberstone Gate, and in addition they are also retailers of methylated spirits at that address. They also use methylated spirits in their business, and were under bond to receive 200 gals. industrial methylated spirit, which traders are allowed to receive for the purposes of their business, but not to sell. In the present case the defendants supplied to a retailer, a Mr. Lenton, a certain quantity of industrial methylated spirit which was rendered unpotable by the addition of wood naphtha, but to only a small extent compared with what was required in the mineralised methylated spirit which was permitted to be retailed. It had been explained that the defendants ran short of the stock of mineralised spirit, and in the absence in Scotland of Mr. MacDonald, who attended to this branch of the firm's work, it was supposed that the industrial spirit could be made to do by the addition of mineral naphtha. This was not permitted, and the Inland Revenue authorities, who made the discovery through a supervisor examining Mr. Lenton's stock, felt it was necessary to bring forward the case to impress on traders the importance of observing these regulations.

Mr. Bigge said defendants admitted a technical offence, but they had no intention of deliberately breaking the law. They had explained and apologised for the occurrence, which was quite inadvertent, and was really due to a diffi-



ulty which arose in the absence of the manager of the department. There was no attempt at fraud, for the spirit supplied would actually cost more than the spirit asked for.

The Chairman (Mr. Fielding Johnson) said it was clear there had been an infringement of the regulations, but it also seemed clear that there was no fraudulent intention in the matter. A penalty of 40s. and costs would be imposed.

### Merchandise-marks Act, 1887.

#### EAU DE QUININE.

At the West London Police Court on April 22, Parke's Drug-stores, Ltd., of Harmond Street, N.W., were summoned for applying at their branch shop at Shepherd's Bush Green a false trade description of "Giraud's eau de quinine" to a bottle of red liquid, which was not in fact made by Giraud, and for selling on that date a bottle of that liquid to which the false trade description of "Giraud's eau de quinine" was applied. There were two other summonses in respect of the alleged application at the same shop on January 21 of the false trade description of "Eau de quinine, made by Giraud's under this name, Fayard Fils," to a similar bottle of red liquid, and of the sale of the same.

Mr. H. G. Rooth appeared for the prosecution, and Mr. W. S. Glyn-Jones for the defendants.

Mr. Rooth stated that the prosecution was instituted by Mr. Wagner, the agent for Giraud Fils. Two witnesses went to the Shepherd's Bush branch of the defendant company on January 21 and January 24, and they each required to be served with a bottle of Giraud Fils' quinine-tonic. In each case they were served with something different, but similar in appearance, which was labelled Fayard Fils, and which was in fact manufactured by the defendants. In each instance the purchaser pointed out that this was not the article, and in each instance he was told by the employé who served him that it was the same. Since the summonses were issued the defendants had placed themselves in communication with the prosecutors, and had placed before them such circumstances that made it quite clear that they themselves—the principals—were not in any way cognisant of what had occurred, and circumstances which justified the assumption that what the employé had done had been done in ignorance. Under these circumstances he (Mr. Rooth) was instructed to ask to be permitted to withdraw the summonses. He was bound to say this, that the defendants had offered them handsome compensation for the mistake that had been made.

The Magistrate allowed the summonses to be withdrawn.

### Sale of Food and Drugs Acts.

#### CHLORODYNE LOZENGES.

At Bury County Police Court on April 23, James Wright and George Seymour, of Higher Lane and Manchester New Road, Whitefield, respectively, were summoned for selling chlorodyne, and linseed, liquorice, and chlorodyne lozenges alleged to contain only one ingredient of chlorodyne—viz., chloroform. Superintendent Noblett said a test-case was going to be taken at Nelson in respect to similar lozenges, and he applied for permission to withdraw these summonses. The required permission was given.

## Bankruptcy Report.

*Re* JOHN MASON METCALFE, 60A Elswick Road and 848B Scotswood Road, Newcastle-on-Tyne, Chemist and Druggist.—The following are creditors: Bleasdale, Ltd., York (26/.); D. & W. Gibbs, Ltd., London (14/.); Mrs. Harbottle, Newcastle (62/.); J. Ismay & Sons, Newcastle (70/.); Geo. Joplin, Newcastle (442/.); Southall Bros. & Barclay, Ltd., Birmingham (36/.); J. Timpson & Co., Ltd., London (11/.); Wilkinson Simpson, Ltd., Newcastle (13/.); Wright, Layman & Umney, Ltd., London (10/.).

*The C. & D. DOSE TABLES FOR STUDENTS OF PHARMACY.*—We have now printed as a twenty-four page booklet our table showing the adult doses in ordinary cases of the principal medicinal agents, and have added metric equivalents for dispensing and a complete table of atomic weights, comprising the B.P. figures and the International Committee's latest pronouncements (O = 16 and H = 1). The booklet measures 4 in. by 2 in., and can be carried in the vest pocket. Copies of it can be obtained from the C. & D. (Book Department), 42 Cannon Street, London, E.C., post free, for three penny stamps per copy.

## Deeds of Arrangement.

GRILLS, JAMES HANNA, Druggist, 197 Woodstock Road, Belfast.—Assignment in trust for the benefit of the creditors. Dated April 13, and filed April 16. Unsecured liabilities 150/., estimated net assets 15/.

HAYTON, THOMAS REBANKS, 159 East India Road, Poplar, Chemist and Druggist.—Trustees: A Tebbutt, 76 Chiswell Street, London, E.C., wholesale druggist, and another. Dated April 13, filed April 16. Secured creditors, 150/.; liabilities unsecured, 789/.; estimated net assets, 220/.. The following are creditors: W. Sutton & Co. (115/.); Baiss Bros. & Stevenson, Ltd. (32/.); Stephen Smith & Co., Ltd. (16/.); Hodgkinson, Prestons & King (15/.); Houghtons, Ltd. (11/.); J. Timpson & Co., Ltd. (10/.); W. S. Glyn-Jones (468/.); Mrs. Fletcher and Mrs. Wintle, Chingford (16/.).

HELCKÉ, ARNOLD, 102 Valkyrie Road, Westcliff-on-Sea, and HELCKÉ, GASPAR DIEDERICH, Boscombe Tower, Herne Bay, trading at Harty Ferry, Faversham, and St. Dunstan's Buildings, St. Dunstan's Hill, London, E.C., as Helcké Bros., Manufacturing Chemists.—Trustee: C. T. Viney, 99 Cheap-side, London, E.C., C.A. Dated April 7, filed April 13. Secured creditors, 665/.; liabilities unsecured, 4,210/.; estimated net assets, 3,065/.. The creditors include Honeywill Bros. (106/.); D. W. Greenhough & Son (307/.); C. Bogler & Co. (1,040/.).

## Gazette.

### Partnerships Dissolved.

DE GRUCHY, C. W., and ACOMB, L. E., general medical practitioners, Caerleon (Mon.), under the style of De Gruchy & Acomb.

GOFTON, J., and HARPER, T., veterinary surgeons, North Shields, under the style of Gofton & Harper.

### The Bankruptcy Acts, 1883 and 1890.

#### RECEIVING ORDER.

DAKHYL, HANNA NASSIF, Holland Street, Kensington, W., doctor of medicine of the University of Paris.

#### ADJUDICATIONS.

BRYCE, JAMES ALEXANDER (trading as Bryce & Co.), Leadenhall Street, E.C., export druggist.

CARTER, WILLIAM, East Grinstead, Sussex, chemist.

GRIFFITH, GRIFFITH RICHARD, Carnarvon, surgeon.

## New Companies and Company News.

GAESIDES, LTD.—Capital 7,000/., in 1/2 shares. Objects: To take over the business of Garside & Son, grocers, chemists, etc., at Ormskirk. The first directors are A. W. Daish (chairman), H. H. Salter, and H. L. Daish. Registered office, 6 Aughton Street, Ormskirk, Lancs.

LIVERPOOL GLASS CO., LTD.—Capital 2,500/., in 1/2 shares (1,250 preference). Objects: To take over the business of Grice & Co., glass-bottle manufacturers, at 49 Freemason's Row, Liverpool. The first directors are A. Hinton, F. Walton, and G. H. Russell. Registered office, 85 Westmoreland Place, Liverpool.

FERWIN, LTD.—Capital 20,000/., in 1/2 shares. Objects: To acquire the business of manufacturing and selling the medicinal preparation called "Ferwin" invented by the late Gustav van Lipp, apothecary, Cleve, Germany, and now carried on by F. A. Arenberg, Manor Lodge, Thundersley, Essex. The first directors are F. A. Arenberg and F. H. Henrici.

ALBA MANUFACTURING CO. (ENGLAND), LTD.—Capital 3,000/., in 1/2 shares. Objects: To acquire the business of F. H. Jobbins, Middleton, and to carry on the business of manufacturers of chemicals, glycerin, etc. The first directors are F. H. Jobbins (permanent governing director), J. E. Fitton, and J. C. Marshall. Registered office, Bowlee Mill, Middleton, Lancs.

ADAMS BRITISH OIL CO., LTD.—Capital 8,000/., in 1/2 shares. Objects: To adopt an agreement with G. H. Adams and E. G. Affleck, and to carry on the business of oil, grease, turpentine, and turpentine substitute manufacturers, refiners, importers, distillers and dealers, chemists, drysalts, dealers in resin, etc. No initial public issue. The first directors are E. G. Exley, G. H. Adams, and E. G. Affleck. Registered office, Yeoman Street, Plough Bridge, Deptford, S.E.

**WESTMINSTER COLLEGE OF CHEMISTRY AND PHARMACY, LTD.**—At a general meeting of this company held on April 16, it was unanimously resolved that the company be wound up voluntarily, and Mr. J. Edward Myers, F.C.A., of Messrs. J. Edward Myers & Clark, chartered accountants, Trafalgar Buildings, Northumberland Avenue, W.C., was appointed liquidator. [In connection with this matter Mr. G. S. V. Wills informs us that he is a creditor of the company. It is not his intention to cease teaching, and he will make an early announcement about the matter.]

**HENRY SQUIRE, LTD.**—In consequence of rumours respecting this business a representative of the *C. & D.* called on Mr. John B. Ball (of Messrs. Ball, Baker, Deed, Cornish & Co., 1 Gresham Buildings, Basinghall Street, E.C.), who was appointed receiver and manager by the High Court on behalf of the debenture-holders. The business is still being carried on under Mr. Ball's management, and negotiations are proceeding, as a result of which a statement is expected to be submitted to all who are financially interested in the company.

**MORTGAGES AND CHARGES.**—*Alliance Chemical Co., Ltd.*, Bury. A memorandum of satisfaction in full of debentures dated December 3, 1903, securing 5,000*l.*, has been filed.—*Walker, Raggatt & Co., Ltd.*, mineral-water manufacturers, Bath. 500*l.* 6-per-cent. third debentures were issued on April 7, 1908, charged on the company's undertaking and property.—*Jones Bros. (West Bromwich), Ltd.*, chemical manufacturers. An issue of 825*l.* 4-per-cent. debentures on April 9 has been registered.—*British Association of Glass-bottle Manufacturers, Ltd.*, Leeds. A mortgage dated April 7, 1908, to secure 2,000*l.*, charged on certain uncalled capital, has been registered, as held by Messrs. Kilner, Rotherham, and F. R. Dixon-Nuttall, St. Helens.

## Birth.

**SKINNER.**—At 33 Restalrig Road, Leith, on April 18, the wife of James A. Skinner, chemist and druggist, of a daughter.

## Marriages.

**MILLING—BANKES.**—At Helsby, on April 11, John Milling, chemist and druggist, Foregate Street and Town Hall Square, Chester, to Eva Banks, youngest daughter of the late Mr. J. B. Banks, Runcorn.

**PRYSOR-JONES—EVANS-JONES.**—At the Tabernacle, Welsh Congregational Church, Liverpool, on April 15, by the Rev. O. L. Roberts, pastor, assisted by the Rev. T. Ogwen Griffith, Rhyl (cousin of the bridegroom), David Prysor-Jones, chemist and druggist, Park Road, Liverpool, to Mary Evans-Jones, eldest daughter of Mr. Hugh Jones, Valetta Lodge, Newsham Drive, Liverpool, and Tyddyn Felin, Talycain, North Wales.

## Deaths.

**CRUSE.**—Suddenly, at Claygate, Surrey, on April 18, Mr. Thomas Edward Castell Cruse, chemist and druggist, aged thirty-one. Mr. T. E. C. Cruse was the eldest son of Mr. T. H. Cruse, pharmaceutical chemist, Southsea, to whom the state of his son's health has been for some time a considerable anxiety.

**PASMORE.**—At Highclere, Prospect Park, Exeter, on April 8, Mr. George Pasmore, chemist and druggist, aged eighty-five.

**PATERSON.**—At Helmsdale, Sutherlandshire, on April 13, Mr. James Paterson, J.P., chemist and druggist and postmaster, aged seventy-four. Mr. Paterson was a native of Aberdeen, and served his apprenticeship with Messrs. Paterson, wholesale druggists there, and subsequently was an assistant in Golspie and Helmsdale. He passed the Modified examination in January 1869, and on his employer's death took over the business in Helmsdale, where he took a leading part in public affairs, and was Baron Bailie of Assynt, besides holding office in several administrative bodies. In earlier life Mr. Paterson was an enthusiastic Volunteer, being lieutenant of the Helmsdale Company of the 1st Caithness R.G.A. He was the crack shot of the brigade, and won a gold medal three times in succession.

Mr. Paterson was twice married, and leaves a widow and two sons and two daughters by his first marriage. His younger son, Mr. William Paterson, has been appointed interim-postmaster.

**PECHEY-PHIPSON.**—At 29 Grimston Gardens, Folkestone, on April 14, Mary Edith Pechey-Phipson, M.D., formerly chief physician of the Cama and Allbless Hospitals, Bombay, wife of Mr. Herbert M. Phipson, aged sixty-one. In a note to the "Times," Dr. Sophia Jex-Blake states that Mrs. Phipson, as Miss Pechey, was one of the first five women to matriculate at the Edinburgh University in October 1869, and proceeded to attend the lectures in physiology and chemistry at the University. In chemistry she came out first of her year, for, though two men had slightly higher marks, they were both second-year students. This position in the chemistry class entitled her to one of the Hope scholarships, which were to be awarded to the four students who stood highest in the examinations in chemistry. This scholarship was, however, refused to her, solely on account of her sex, but the public indignation excited by this episode went far to further the cause of the women, and to pave the way for the triumph which came many years subsequently in the opening of the University of Edinburgh to all women. In 1877 Miss Pechey took the diploma of the Royal College of Physicians in Ireland, which led the way in the admission of women, and also obtained the M.D. of the University of Bern.

**POOL.**—At 3 Hamilton Terrace, Stonehouse, Devon, on April 14, Mr. John William Pool, chemist and druggist. Mr. Pool died from shock following on a fall by which his thigh was broken.

**RASTRICK.**—At Shanklin, Isle of Wight, recently, Mr. W. H. Rastrick, chemist and druggist, aged eighty-five. Deceased, who died from pneumonia, carried on business for many years in King's Road, Southsea.

**SIDDELEY.**—At Burlington Road, Altrincham, Cheshire, on April 14, Mr. John Siddeley, chemist and druggist, aged seventy-four. Deceased went to Altrincham in 1848 as an apprentice to Mr. Wm. Paulden, chemist and druggist, with whom he remained for eleven years. He then commenced business for himself in Church Street, and ultimately went into partnership with Mr. Thos. Kent and established the Altrincham Brewery. As a member of the Court Leet he was Mayor of Altrincham in 1878-9.

**TRICK.**—At Briton Ferry, South Wales, on April 15, from consumption, Mr. William Wilberforce Trick, chemist and druggist, aged thirty-one. Mr. Trick passed the Minor in 1904.

**WATSON.**—At Queen's Parade, Muswell Hill, London, N., Mr. David Watson, pharmaceutical chemist, aged seventy-seven.

**WHITE.**—At Ashford, Kent, on April 20, Mr. Charles Thomas White, chemist and druggist, of 106 High Street, aged seventy-nine. Mr. White had been in failing health for some considerable time, and latterly he had suffered from bronchitis. He was born at St. John's Wood, but spent his early days in Norfolk. In 1863 he took over the business in Ashford, which he carried on until two years ago, when the active management fell upon his son, Mr. P. White. During his long career Mr. White devoted himself entirely to his business, spending as many as eighty hours a week in his shop. His wife pre-deceased him a short time ago, but he leaves a family of four sons and two daughters.

**WILKINSON.**—At 7 Middleton Road, Kingsland, London, N.W., on April 15, Mr. Benjamin John Wilkinson, chemist and druggist, aged seventy-two. Mr. Wilkinson, although he had been ailing for some time, died suddenly, he having been at business on the previous day. The funeral took place at Chingford Mount on April 21. A letter of condolence and sympathy was sent to the widow by local chemists, and flowers were sent to the Metropolitan Hospital in deference to Mr. Wilkinson's often-expressed regret that so much money is wasted on wreaths, whereas the flowers would be acceptable to hospital patients.

**WOODCOCK.**—At 15 Kingswood Road, Fallowfield, Manchester, on April 12, Mr. Nelson Oates Woodcock, representative in the Midlands and West of England of Levinstein, Ltd., chemical-manufacturers, Manchester, aged thirty-one.



## Business Changes.

Properly authenticated business notices (not being advertisements) are inserted in this section free of charge if promptly communicated to the Editor.

MR. T. F. COX, chemist, has purchased the business lately carried on by Mr. J. H. Hollingworth at 83 Oxford Street, Liverpool.

MR. T. J. THOMAS, chemist and druggist, recently acquired the business formerly carried on by Mr. E. Jenkins, chemist and druggist, at 6 Market Place, Faversham.

BOOTS, LTD., have acquired the business of the Sussex Drug Co., Ltd., 10 Robertson Street, Hastings, and have removed the prescription books and stock to their branch at No. 19 in the same street.

## Trade Notes.

MESSRS. SANGERS, 258 Euston Road, London, N.W., are building a new front to Messrs. Shirliff & Co.'s pharmacy in Goldhawk Road, Shepherd's Bush, London, W.

It will be observed that each "Sterilisable" enema, douche, and injection bottle as advertised in this issue carries with it a 100% insurance coupon against railway accidents.

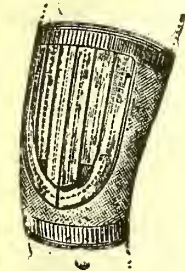
NON-DEPOSITING ORANGE-WINE, according to the requirements of the British Pharmacopœia, 1898, is offered by Messrs. Melrose-Drover, Ltd., Leith, who will send on application samples and prices to any of our subscribers.

COURVOISIER'S OTTO OF VIOLETS was, we understand, a favourite Easter gift. Messrs. H. Brannley & Co., Ltd., the originators of the perfume, assiduously advertised it for this purpose, and this, combined with its intrinsic merit, secured for it good displays in West-end shops.

STROBIN.—Many of our readers will recollect the effective circular inserted in our last Summer Issue by the manufacturers of "Strobin," the preparation which cleans straw and Panama hats, for which Messrs. Thomas Christy & Co., of Old Swan Lane, Upper Thames Street, London, E.C., are the agents. We have recently received from them an effective showcard, in the form of a Panama hat, which is placed inside the shop window by means of an indiarubber "sucker." Further particulars in regard to it can be obtained from Messrs. Thomas Christy & Co. on application.

"ZENOBIA" CELESTA PERFUME.—Mr. W. F. Charles, Loughborough, Leicestershire, has just produced a new perfume under this title which he describes as "a realization of the rich fragrance of the sacred odours and essences of the East." It is a delightful perfume, and it will appeal to all who appreciate a perfume of full fragrance and subtle origin. It is put up in a style consistent with the odour, the label being of Oriental design, and the bottle of amber glass is stoppered and capped with a new celluloid-like material which adds to the beauty of the "get-up." The perfume is retailed at 3s. 6d., 7s. 6d., and 10s. 6d.

THE SURGICAL HOSIERY CO., LTD., Russell Street, Nottingham, who are the makers of the "Surco" brand of abdominal belts and seamless stockings, have introduced a new football knee-cap, the form of which is shown in the illustration, and it will be observed that, while giving support to the muscles of the knee, it is also an efficient protection to the knee-cap. This is a line which chemists in football districts will find it advantageous to introduce. In their new factory the company have installed a new type of elastic-stocking machine capable of turning out 100 pairs of stockings per week. The company's London depot is at 134 Blackfriars Road, S.E.



TRUSSES.—Messrs. Ellis, Son & Paramore, Spring Street Works, Sheffield, besides manufacturing surgeons', dentists', and veterinary surgeons' instruments, make a speciality of trusses for the home, colonial, and foreign markets. A leading feature in one style of their trusses

is the strong elastic bands which take the place of steel springs. The improvement is effective in reducing slight hernia, while the truss is more comfortable and can be worn at night as well as during the day. The firm are the makers of the "Shield" brand of bathing-trusses, which are made of flexible material and are easily kept aseptic. Special attention is paid to the production of trusses in which the springs and coverings are prepared so as to resist the injurious effects of excessive perspiration, thus being well suited for colonial trade. Messrs. Ellis, Son & Paramore will be glad to send their illustrated price-list to any of our readers at home or abroad.

THE "STRONG" FLY STRING.—Mr. Christy Strong, manufacturer of sticky fly-papers, of Reading, introduced last season a "fly-string" in a triangular tin, with a tube of string inside it immersed in a tenacious and non-drying material. This is manufactured in his works at Reading. One point about it is that only a small length of the string—i.e., about 6 in. out of 36 in.—is visible at a time, and its surface suffices to catch 100 to 150 flies, so that a penny string should be responsible for getting rid of a thousand flies. It is attractively put up, and the success of last season suggests that the "Strong" String will be popular during the coming summer. Mr. Strong will send a sample free on application by any of our subscribers.

CARE OF THE TEETH.—Thoughtfulness on the part of employers for the health of their employes is an axiom which no successful business man overlooks. In this connection Mr. K. A. Lingner, proprietor of the Odol Chemical Works, is abreast of the times, for recently he has instituted in the various branches of the business a system of inspection and examination of the mouths and teeth of the staffs, factory-girls, workmen, etc., by a skilled dentist. At the works in Park Street, Southwark, London, S.E., Mr. Frank Hall, L.D.S., R.C.S.I., has been engaged for some time, and the idea works splendidly, the employes appreciating the fact that neglect of the mouth and teeth is an important factor in ill-health. This idea might well be taken up by other firms with advantage and benefit to all concerned.

MESSRS. CRESPI-MARTINENO, of Grasse, France, have opened a London office at 20 and 21 Lawrence Lane, Cheap-side, London, E.C., for the sale of their essential oils and raw materials for perfumes and soap. The firm is an old-established one which was originally founded by Mottet for the production of floral extracts and those essential oils which the Alpes-Maritimes are famed for. As the years have gone on they have added to their manufactures the distillation of essential oils generally and the preparation of modern perfumery products, such, for example, as the "Oloniques," a new form of soluble essence representing the complete aromatic and odoriferous constituents of the materials from which they are prepared. "Oloniques" are made representing individual odours and also compound odours. The firm are offering through our advertisement pages this week a one ounce trial sample of "Olonique" Lavender at 2s. 4d. This is stated to provide a wonderful perfume.

DIABETIC FOODS.—The Brusson Jeune British Agency, 53 Broadway, Deptford, S.E., recently introduced from France the Gluten bread and preparations manufactured by Messrs. Brusson Jeune, Villemur, and they have on their merits had a growing sale. They are now, through our advertisement pages, made known to a wider circle of buyers. We have had the opportunity of a conversation with the pharmacist who introduced the foods here, and he informs us that the peculiarity of the bread (which is made in rolls) is its palatability, which is attributable not only to the method of manufacture, but that, while being a gluten bread, it contains starch so altered that it is not converted in the body into diabetic sugar. Patients relish the bread (which we find to be scarcely distinguishable in taste from French rolls) and thrive upon it. It keeps indefinitely. From the same gluten material vermicelli and macaroni are made, as well as several other table delicacies which add to the menu of diabetic patients. The rolls are put up in boxes of fifteen to retail at 3s., and the agency ensures retailers 20 per cent. profit, the price being protected.

CHRISTMAS CARDS AND CALENDARS.—As we write it seems a far cry to Christmas, but it is not too soon for those chemists who are separated from the Mother Country

by a voyage of six weeks or so to make inquiries regarding cards and calendars for sale or distribution in December. With this idea before us one of our staff called at Messrs. Raphael Tuck & Sons, Ltd., Raphael House, London, E.C., to look through next season's designs. It is a constant surprise to most people to find that each year the stream of new designs in Christmas cards keeps up its volume. This year the number of fresh designs seems greater than ever, some 2,000 new sets being already prepared. Probably the most striking novelty is the "Royal" card series. The cards in this collection are reproductions of Christmas cards which Messrs. Raphael Tuck & Sons, Ltd., prepared last year for the King and Queen, the Prince of Wales, the German Emperor and Empress, the King and Queen of Norway, and the King and Queen of Spain. Another interesting card of the series is a reproduction of the last one painted for the late Queen Victoria—a pretty cradle scene entitled the "Prince of Peace." The pictures on the King's and Prince of Wales's cards are "The Origin of the Order of the Garter" and "The First Investiture of the Order," and naturally demand brilliant colouring. The German Emperor's card has on it, as one expects, a naval picture, the subject being the drinking of the Sovereign's health on Drake's flagship. "The Madonna and Child" is usually the subject of the cards prepared for Royal ladies, but the treatment is different in each case. The Royal collection is extremely interesting, and from its unique character is destined to be the leading line in Christmas cards this year. Messrs. Raphael Tuck have also a fine collection of over four hundred calendars, so that no difficulty should be experienced in meeting the various tastes of customers.

## Poisonings.

THE deaths from poisoning reported during the past eight days have been six, two of which were misadventures. The suicides were committed by Charles Lewis Robinson (56), of Brixton, with potassium cyanide; by George Kitson (52), of Middlesbrough, and Frederick James Sherrard (53), of Marylebone, with oxalic acid; and by Isabella Gent (48), of Nottingham, with carbolic acid. Samuel Gourlay, a well-known Musselburgh man, drank a poisonous substance in mistake for a seidlitz powder and died subsequently in Edinburgh Royal Infirmary.—At the City Coroner's Court, on April 16, Dr. F. J. Waldo held an inquiry concerning the death of Florence Rose Fryer (15), who died in St. Bartholomew's Hospital from the effects of poisoning. The girl's mother stated that she was a furniture polisher, and used bichromate of potash in her business. She generally got it from a colour shop in Hoxton Street, Shoreditch, and had sent a child of seven for it. The Coroner said the law required that beer and spirits sold to a child should be sealed up, and yet such a deadly poison as bichromate of potash was sold in this open manner to a child of seven. The witness said the poison was served in a paper bag, which bore no label of any kind. Deceased picked up a piece of the bichromate and put it in her mouth, thinking it was a sweet. She was seized with terrible pains, and her removal to the hospital took place some days later. The poison was used for staining mahogany, and witness had lost several of her finger-nails through using it. Dr. Teichmann, of St. Bartholomew's Hospital, said that death was due to internal hemorrhage, following the action of the bichromate. Two drachms had been known to cause death in four hours. It was not a scheduled poison, but witness thought it ought to be. Such a poison ought not to be sold to a child of seven. The Coroner remarked that he very seldom had a case of carbolic acid poisoning now that substance was scheduled. Of course, this opened up a very big trade question, because if bichromate of potash had to be sold only by chemists it would be under restrictions and more expensive, which might prove a hardship. However, he did not think that varnish and colour dealers should be allowed to sell it without labelling it "Poison," with the name and address of the seller, and he thought Parliament might make the necessary alteration. He certainly could not see why people should be allowed to sell it to young children in paper bags. In returning a verdict of death by misadventure, the jury added

a rider to the effect that persons selling such deadly poisons as bichromate of potash should be compelled to place the same in a wrapper or vessel labelled with the name of the substance, the word "Poison," and the name and address of the seller. The Coroner said he would send the recommendation to the Home Secretary.

## Prescription Problem.

THERE were but few attempts made to solve the prescription problem set in this column on April 11. This was due to the fact that the script was Italian. Most of the solutions came from abroad, cards being received from Milan, Zurich, Millstatt, Florence, Wiesbaden, Parma, Rome, and Vevey, but the British replies are quite equal in accuracy to those from the Continent. In regard to the first line in the prescription there is some difference of opinion as to whether this is a medicine or simply the name of the patient. Some suggest that it is "Etere Cantaride," but the majority agree that the name of the patient—Ester Castiglione—is indicated. The rest of the prescription is as follows:

*Italian.*

Pr.

Lattato di marte  
Polvere [di] noce di kola ana centig. 25  
Bisolfato di chinina centig. 5  
Acido arsenioso milligr. uno  
Polvere noce vomica centig. 5

Mischiarli [e] fai cartina una. Simili No. xxx con ostie.

*Translation.*

Take—

Lactate of iron  
Powdered kola-nut, of each ... 25 centigrams  
Bisulphate of quinine ... 5 centigrams  
Arsenious acid ... 1 milligram  
Powdered nux vomica ... 5 centigrams

Mix and make one powder. Send 30 such with wafers [in packets].

Although "lattato di ferro" is the official name in the Italian pharmacopoeia the older name used in the prescription did not cause any difficulty. It will be noticed that we have given the directions in full—abbreviations were employed in the original prescription—but it should be noted that the verb "to mix" can be rendered "mischiare," "mescolare," or "mescere," and each form has been employed by one or other of the competitors who essayed to give the full word. The physician's name on the left-hand side is given on some of the postcards, but no two agree. The date presents no difficulty when it is remembered that "Ottobre" is the Italian for "October." We have taken into account the time of posting the replies and the correctness of the answers, and have awarded each of the following competitors a copy of the "Art of Dispensing": Mr. C. S. ASHTON, 46 Dyke Road, Brighton; Dr. C. DÜNNENBERGER, Pharmacie Internationale, Zurich; Mr. ALFRED FIEDLER, Lades Hof-Apotheke, Wiesbaden.

R.

*Autore. medicat. Ferrat. 2/10*  
*Chin. miscolat. 1/10*  
*Inf. 2. di. v. Lg. 4.5*  
*Pol. N. 30*  
*Conc. b. Laffon*  
*Dr. 26. 4 P. 2. 2.*

The above is the problem for this week. The usual prizes are offered, and we should like to have postcard solutions sent in before May 2.



## Observations and Reflections.

By XRAYSER.

### The Australian Minister of Customs

must be a very conscientious personage. In all other countries the officials connected with the collection of taxes, from the highest to the lowest, are politely assumed to be exempt from the obligations which limit the rest of us. We cannot love the man who dips his hands into our pockets, and the utmost we can ask of him is to accomplish his purpose as gracefully as may be possible. At the best we only expect the Revenue gentlemen to be unmoral during business hours. They may be earnest temperance advocates in the evenings, but it is their duty to swamp the nation with beer or brandy in the daytime so long as it pays the necessary tax. But the Minister of Commerce of the Commonwealth regards his responsibilities from a far loftier point of view. He has told the representatives of the Proprietary Articles Section of the London Chamber of Commerce, who hoped to inoculate him with some European notions of the separation of finance from sentiment, that "his duty was to protect the masses," and that "where medicines were injurious it was the bounden duty of the Government to stop them." With every respect for Mr. Chapman's desire to utilise his office for the benefit of the masses, it may be remarked that his policy is better suited for countries like Russia or Germany, whose rulers are expected to exercise the functions of fathers and protectors of their people, than for a community trained to take care of themselves.

### The Democracy of Australia

is its own ruler. It decides its own policy, and appoints Ministers to carry it out. It eats and drinks, learns and believes pretty much what it likes, and the Government is as competent to decide these things for it as to select its medicines. It will probably listen with interest to Mr. Chapman's advice outside business hours on soothing medicines and drink cures; but inside them he is paid to collect as much money as he can legally from the import duties made and provided. The "awful example" which Mr. Chapman quoted in justification of the position he took up is a good bit short of conclusive. He knew a drink cure, he said, composed of nine parts of sugar and one part of salt. This was evidently intended to be exhibited as a striking specimen of the compounds which it is the bounden duty of the Government to stop. Whether that mixture has or has not any effect on the alcoholic craving I do not know. On paper it looks likely to stimulate some sort of thirst. But there are several very simple ways of dealing with the danger which such a cure threatens, if there is a danger. The English way would be to leave it alone, but there can be no objection to Australia improving on England. An authoritative analysis published broadcast would be effective, or at least would relieve the consciences of the Commonwealth's Ministers. Then, again, there is, or should be, a legal remedy against false representations. If the preparation survives all this official animosity there is probably some good in it.

### Stock Mixtures

at hospitals have been sometimes quoted as illustrative of the indifferent treatment which out-patients get at those institutions. As a matter of fact, those stock mixtures are very good medicines, and in 90 per cent. of the cases are probably quite suitable. Still, the statement of Mr. Jennings that at St. Thomas's "the tendency is to prescribe special mixtures for each patient" is gratifying; or would be if it were not for the disconcerting explanation

which follows—that this practice is adopted "so as to instruct the medical student in prescription writing." It may be that the patient gets a benefit incidentally, but apparently that is a secondary consideration.

### Morphia

is one of two words of pharmaceutical interest which occur in the current part of the Oxford Dictionary. It was Sertürner who gave this name, or rather that of morphium, to the active principle of opium which he had isolated, and which was to prove the first of a long series of precious products, the triumphs of the pharmacy of the nineteenth century. The name strikes us now as a happily chosen one, for Morpheus, who is first heard of in the classics from Ovid, was represented bearing a poppy plant with the head of which he touched those whom he wished to put to sleep and with whom he was commissioned to communicate in dreams. To our eyes and ears the very word "morphia" seems to suggest drowsiness. But its derivation does not justify that association. The Greek word *morphe* meant a form or shape, and Morpheus was so called on account of his gift of assuming any shape or form in perfection. He was not the god of sleep, only his minister or messenger. Somnus dwelt in a palace situated in the vague land of the Cimmerii, "where the sun never shines, and perpetual darkness reigns." The grounds around the palace were planted with poppies and other narcotic herbs. The river Lethe flowed near by, and the dull murmur of its waves was the only sound which broke the gloomy silence. Ovid's story represents Morpheus sent to Alcyone to acquaint her with the news of the death of her husband, Ceyx. Morpheus appears to her in the form of her drowned lord, imitating in every detail his appearance, voice, and gestures. The second word referred to is

### Mortar,

the oldest and most universal of pharmaceutical symbols. The Latin word "mortarium" provided "mortere" in old English, but the editor of the Dictionary doubts if this old English word survived to furnish our "mortar." If not, the latter came to us from the French "mortier." In any case the original was "mortarium"—"of obscure origin," says our authority. Littré and others believe it to have been associated with "martulus," a hammer, and traceable to the Sanskrit root "mar," to crush or grind. The Latin term "mortarium" was used to describe both the utensil and the substance ground in it. Thus Juvenal employs the word to signify triturated drugs, and Vitellius adopts it in the sense in which it still appears in English and French—to indicate the mortar used in building. Various other applications of the word, such as a bowl in which a night light was burned, a piece of ordnance, the President's cap in French law courts, and the "mortar-board" of English schools, are adaptations of the term resulting from their shapes. Some curious quotations are given in the Dictionary relating to the selection of the mortar as a symbol of disgrace in some parts of England. Two of these are extracted from the town records of Maldon, in Essex. The first is dated 1423, and states in Latin that the wife of John Morys was sentenced as "communis litigatrix, et portabit mortarium." In 1486, also at Maldon, the minute appears: "All maner of brethelde brauleres for their brauling shall bere the mortar according to the olde custom of this town." The custom was not confined to Essex, for it is also reported that at Sandwich in 1637 "a woman carried a wooden mortar throughout the town hanging on the handle of an old broom upon her shoulder for abusing m<sup>r</sup> mayoress." What was the exact significance of this form of punishment?



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## Editorial Comments.

### Our Colonies.

THE series of interviews with London representatives of the great British dependencies which we publish to-day form a graphic presentation of the unique position which the British Empire holds among modern nations—indeed, in the history of the world. Whether or not Britons have been excelled as pioneers by, for example, Spanish navigators, there is no question that the British system of colonisation is historically unique. It reflects British individuality and independence, and is distinguished from ancient and mediæval colonisation in the fact that these



parts of the Empire are not used as sources of revenue for the home country. "Dependencies" they are in a nominal sense only, and, except in the case of the Crown Colonies, most of them have developed beyond the stage at which the term "Colony" can be strictly applied. We never dream now of calling Canada a Colony, and the average Australian is hurt if he is called a Colonist. The representation of these distant parts of the Empire at the centre of Government may be a prelude to representation in an Imperial Parliament; but at present it stands for development by infusion of new blood from the homeland, by encouraging disposal of the Colonial produce, and by fostering business relations with buyers and sellers at home. These are the chief points which emerge from the series of interviews which we print. But not less important is the lesson conveyed of the value of Greater Britain as a market to the drug-trade and chemical-industry. The market is good now, but the potentialities are immense. THE CHEMIST AND DRUGGIST has been saying this almost since its foundation in 1859, and especially since, a few years later, its founders travelled through these distant parts of the Empire and prospected, so to speak, the markets for the home trade. The growth of our export business in chemicals, drugs, and allied products during the past forty years has been multiplied several times over, and is still increasing; but there are signs which require the keenest attention on the part of British exporters. These signs are sufficiently apparent in the notes which we publish, and this issue is an earnest of our intention to keep the value of Colonial business to the front.

### Sale of Spirituous Medicines.

WE have had inquiries lately in regard to the sale of sweet spirit of nitre by small shopkeepers, chiefly with reference to the legality of this trading, statements having been made that Excise officers have informed such shopkeepers that the sale is illegal, and that proceedings would be taken against them if they continued to sell the spirit without a spirit-licence. In consequence we addressed a letter to the Board of Inland Revenue, and have received the following reply:

E. 3942/1908. Inland Revenue, Somerset House,  
London, W.C., April 21, 1908.

SIR,—In reply to your letter of the 16th instant, I am directed by the Board of Inland Revenue to acquaint you that while a spirit-licence is not required for the sale of spirits of nitre or other medicated spirits by registered chemists and druggists, the sale of such articles without a licence by a person who is not a registered chemist or druggist is not allowed. I am, Sir, your obedient Servant,

J. B. MEARS, Secretary.

The Editor, THE CHEMIST AND DRUGGIST.

This statement is important to all our readers. It is strictly in accordance with the law which is fully explained in the *C. & D. Diary*, p. 225. Although the Act, which enables chemists, apothecaries, and surgeons to compound and sell medicines prepared with spirit is very old, as well as restrictive, the Board of Inland Revenue have always given a liberal interpretation to it, and have only interfered with chemists who have flagrantly abused the terms of the Act, and during recent years there has been a tendency to restrict the sale of spirituous preparations which are more palatable than medicinal to those only who hold a spirit-licence. The letter which we print is not in any sense a new interpretation, but is simply a reminder that small shopkeepers and other unqualified persons who have not a spirit-licence have no more right to sell sweet spirit of nitre or other medicated spirits than they have to sell gin, whisky, or brandy. It is the peculiar

province of chemists, according to the law, to sell medicines compounded with spirit, and we hope that this reminder will enable those who supply small shopkeepers with such medicines to warn them of the illegality involved in selling these without a spirit-licence.

### U.S.A. Trade in 1907.

MR. SEYMOUR BELL, British Commercial Agent in the United States, has reported to the Foreign Office on the trade of the Republic during 1907, and his report has been published this week. In view of the financial crisis which convulsed the United States last year the report has exceptional interest. Mr. Bell not only gives an intelligent account of the history of the crisis but also deals with its bearing on the future. It was early in 1907 that the great activity of recent years suddenly came to an end in the American Republic. Up to that time all industries were exceedingly busy, mills and factories were working at their utmost capacity, the railways were congested, wages were at their highest, and the cost of living had advanced to an extreme point. Shrewd business men foresaw that this tremendous industrial activity could not last, it being evident that the nation was living beyond its means, and the first sign of reaction was the growing scarcity of money. This scarcity was rendered more acute by the demand for money caused by continuous industrial expansion, speculation in land and mining, and personal extravagance. The railways were the first and largest sufferers, as they found it impossible to sell their securities at a reasonable price, this compelling them to issue short time-notes at a high rate of interest. This in turn brought a decline in railway shares, and all industrial stocks followed. The crash which ensued is thus described by Mr. Bell:

The situation was peculiar. On the one hand there were the manufacturers with more orders than they could fill, and busy enlarging their plants, merchants selling large quantities of goods at satisfactory prices, labour in such demand that even with the addition of the 1,200,000 immigrants it was necessary to employ inefficient workers at good wages. On the other hand there was dear money, owing to scarcity. When, owing to a failure in New York, light was thrown on the management of some of the large financial concerns in the city, public confidence, which had previously been undermined by certain investigations, gave way completely, resulting in an acute money panic. Careful students of the situation had foreseen a collapse before the end of the year, but did not anticipate that it would come with such suddenness.

What concerns business men in this country is the duration of the depression, and on this point Mr. Bell's remarks are encouraging. The chief fact to be borne in mind is that the panic was entirely financial, and although it has caused a widespread curtailment of commerce, practically no merchandise has been thrown on the markets at ruinous prices (especially does this apply to the chemical and drug trades). It must also be considered that the farmers, who are, after all, the backbone of American prosperity, have not been affected, and although the crops in 1907 were smaller than in 1906 the produce brought higher prices. As Mr. Bell points out: "A country that produces crops valued at nearly 1,500,000,000. is unlikely to suffer long from industrial stagnation." He believes that the worst of the storm is over, and although there will be mercantile disturbances for some months to come, recuperation is well under way. He is not quite sure as to whether the financial house-cleaning has been sufficiently thorough, but if not the period of convalescence may be prolonged. As regards the prospects for trade this year, those on this side who have their fingers on the pulse of American business do not look for any substantial recovery until the Presidential elec-

tion in November is out of the way, and this Mr. Bell confirms. Meanwhile practically every industry (the chemical and drug trades included) is buying from hand to mouth, and the stocks everywhere must be exceedingly low. There has been a slow reaction from the worst point, and although the atmosphere is clearer it is anticipated that we cannot look for more than a quiet business this year. There is, however, every prospect of bountiful harvests this season, and should these materialise they will certainly make for a quicker return to prosperity. Some indication of the acute crisis prevailing is shown by the fact that during the first three months of 1908 there were no fewer than 4,179 failures in the United States, as compared with 2,628 in the first three months of last year. Mr. Bell makes no comment on the chemical industries, but gives a table showing the imports of "tropical products" in 1906 and 1907, which amounted to 84,930,391*l.* and 95,367,151*l.* respectively. Among them we select the following :

	1906 £	1907 £
Barks of quinine ... ..	79,189	94,005
Cocoa, etc. ... ..	2,341,817	3,375,323
Coffee ... ..	14,928,195	14,839,868
Dye-woods and extracts ... ..	186,775	160,409
Gums ... ..	2,637,182	3,355,540
Indigo ... ..	226,543	260,359
Liquorice-root ... ..	372,709	230,458
Opium ... ..	546,195	643,564
Quebracho extract ... ..	205,884	532,037
Rubber and gutta-percha ... ..	11,577,542	11,193,246
Spices ... ..	947,490	961,849
Sponges ... ..	103,058	101,355
Sugar ... ..	16,325,511	17,229,300
Vanilla ... ..	235,355	338,577
Vegetable oils ... ..	2,873,389	3,418,314

Among the exports we notice 4,482,476*l.* for drugs and chemicals, an increase of 12 per cent. Vegetable oils increased by 19.9 per cent. to four millions sterling, but turpentine declined 1.1 per cent. to 2,110,000*l.* Altogether the principal exports amounted in value to 391,596,182*l.*, against 364,924,220*l.*, an increase of 7.3 per cent. over 1906, but 10.8 per cent. more than in 1905. The United Kingdom and British possessions purchased of these exports to the value of 181,524,511*l.*, or 45 per cent. of the whole. On the import side the total value was 294,068,118*l.*, and from a series of tables given by Mr. Bell it is seen that the United Kingdom has not done so well proportionately as Germany and France. Whereas in 1906 the imports from the United Kingdom were 17.5 per cent. of the total, they declined to 16.8 per cent. in 1907, while the German imports in 1906 rose from 11.4 per cent. of the total to 13.2 per cent. in 1907. The decline of British imports was probably the result of caution, and there is no reason to suppose that it is permanent, for with increase of financial confidence there should be a return to the fullest enterprise.

#### Secret Commissions to Doctors.

According to the "News-sheet" of the Secret Commissions and Bribery Prevention League, the Central Ethical Committee of the British Medical Association has issued a Memorandum on the Prevention of Corruption Act, 1906, in which the following specific instances are given of cases where a medical practitioner may bring himself within the provisions of the Act :

1. Cases in which medical practitioners recommend their patients to deal with third parties, such as chemists, makers of instruments and appliances, etc. If any consideration is to be received from such third parties in respect of such recommendations, then the fact must be made known to the patient. For instance, there would probably be no legal objection to a medical practitioner recommending a patient to insure with a specified life-insurance company and accepting from the company a commission with respect of the introduction, provided that he informed the patient that he

acted as agent for the company concerned and would receive a commission from them.

2. Cases in which medical practitioners undertake to procure articles such as drugs or instruments for patients. The medical practitioner is entitled to act as buyer of such articles from the makers or other dealers, and as sellers of them to his own patients, but in such cases he must make it clear that he is acting in this capacity and not as agent.

#### Helium still Refractory.

Professor Kamerlingh Onnes, of Leyden, did not after all solidify helium. Sir James Dewar, writing to "The Times," says Professor Onnes has found that the helium operated upon, though purified with due care, had by some unexplained accident got mixed with a small percentage of hydrogen. The transient solidification witnessed on rapidly expanding the mixed gas from a state of high compression at a very low temperature was due to the hydrogen, of the presence of which Professor Onnes was unaware. The net result is, adds Sir James, that we are as far as ever from achieving the liquefaction or solidification of helium even as a momentary phenomenon. On the other hand, if the critical temperature of helium is no higher than 5° absolute, as Professor Onnes infers from a study of its isothermals at temperatures reached by the use of liquid hydrogen, then we may confidently predict, as stated in Sir James's presidential address to the British Association in 1902, that unless with costly expenditure it would be hopeless to anticipate any success in obtaining the liquid or solid in the static condition. His hopes of the Royal Institution method of attacking the problem leading to a satisfactory result were based on the assumption that the critical temperature of helium would not be lower than about 8° absolute; but if Professor Onnes is right, then it is clear that any resources Sir James can at present command would be inadequate to settle the question. Professor Onnes communicates to "Nature" a note about the matter, in which he says :

The prosecution of the experiments has shown that what I observed in expanding the gas was not the evaporation of solid helium, but solution phenomena of solid hydrogen in gaseous helium. I have communicated to the Amsterdam Academy a note on my experiments, which at the moment leave the condensation of helium a yet undecided question.

#### Oils in Aerated-water Bottles.

We observe that the Liverpool and District Mineral-water Manufacturers' and Bottlers' Association has published a warning in regard to the improper use of bottles bearing the moulded names and trade-marks of members of the Association by chemists, chandlers, and druggists for conveying oils, poisons, and other deleterious liquids. The notice states that if any further cases of such usage be brought to the knowledge of the secretaries of the Association the solicitors of the Association will be instructed to take immediate steps to protect the property of the members of the Association, which is rendered useless after such contamination. While we recognise that such warnings as this do not apply to chemists generally, and that decided cases clearly show that no ground for action lies against retailers who "convey" oils, etc., in bottles presented to them by customers, we give this notice further publicity. The law of the matter is that such branded bottles remain, according to the custom of the aerated-water trade, the property of the persons whose names are upon them, and they are lent to vendors and the consumers of the beverages for conveyance of the beverages only, so that their use for any other purpose by vendors or consumers is wrong. As far as chemists are concerned, we believe that they discourage the practice of putting "oils, poisons, and other deleterious liquids" in such bottles when presented to them by customers.



### Chemical Industry in Great Britain.

An engineering correspondent of "The Times," in the course of an article on the Patents and Designs Act of 1907, deals with its influence upon inventions likely to lead to new manufactures and industries, and with reference to the compulsory working of patents in this country and the commencement by foreign manufacturing businesses of works in England to carry out their patents, says :

Much is made of this fact and of the publication of numerous advertisements by owners of patents offering them for sale or inviting licensees. These facts do not, however, prove much. It is not a new thing for foreigners to start manufacturing-works in this country, even in the district most mentioned in connection with the new law. It is very desirable that such implanting of industries should take place, although the history of such ventures shows that they do not always succeed. With respect to some of the chemical industries, it is well known that Excise and fiscal matters in England have stood in the way of progress with some processes which have arisen out of English inventions. It is also known that in chemical matters English inventors are few and patents fewer. It is a branch of inventiveness which, at least, in detail is undoubtedly more prolific in Germany, for example, and more spontaneously the subject of the brain activity and patience of some races than of others. The attempt, however, to enforce the growth of such industries in this country is to be encouraged even although the foreigner may have to be planted here to carry them out.

We are not disposed to acquiesce altogether in the last statement. There is no lack of inventiveness in this country, but there is little disposition to patent every little chemical discovery that is made.

### Trade-marks in the East.

In further reference to the trade-marks question a writer in the "Standard" enters a protest against the negotiations which are stated to be proceeding between Great Britain and Japan for the reciprocal protection of trade-marks in China. He regards the question as of vital importance to British trade, and one that demands wider public interest in view of the piracy which has already been displayed in official circles in Japan. If such negotiations are taking place, the writer believes it to be desirable that they should not progress until expert knowledge has been sought from those whose interests are concerned. The "Chop" or "Hong" mark is all-important in China, and as much capital has been invested in the establishment of British trade-marks in that country, it would be preposterous if the proposed convention tolerated the infringement in China of British trade-marks which have been appropriated in Japan. Such negotiations ought to be undertaken at Peking without the intervention of Japan, and the time is now ripe to obtain a fulfilment of the oft-renewed promise of an effective system of trade-mark registration throughout China. In some quarters it is thought that the time has also arrived when a limit should be drawn on Japanese spheres of influence in Chinese territory, and however much we delight to honour our allies, it is suggested there is no need for us to go out of our way to close the door against our own trade-marks by instituting new ones for those which have been appropriated in Japan—as is said to have been suggested by Sir Claude Macdonald.

**A NEW GUM FROM QUEENSLAND.**—The following is a paragraph which has gone the rounds of the daily press this week: "A chemist has discovered that the Queensland pine-tree yields one of the most marketable gums in the world. Varnish-manufacturers are buying it at the rate of 10s. per 'kerosene tin.' Without injury to the trees, a fully-matured pine-tree gives two to four tins. . . . The bark of the Cyprus pine also gives a tar equal to the best Stockholm, most useful for sheep-branding, at a cost of digging a hole a few feet in diameter and a few feet deep. The hole is filled with the bark, which is then set fire to on top. The tar runs to the bottom, and is there caught."

## Pharmaceutical Society of Great Britain.

The following is the pass-list of the examinations held in London this month :

### MAJOR EXAMINATION.

There were twenty-four candidates, of whom the following thirteen passed :

Beauverd, David C., London	Greeves, William F., Clapham
Bell, George Andrew, Kilburn	McEwen, William, Hampstead
Bruce, Elsie, London	Morrell, George F., Sutton
Bush, Edward P. D., Clapham	Pierson, George H., Tunbridge Wells
Donaldson, George, Hampstead	Talbot Catherine A., London
Elms, Edith, London	Wren, Gertrude H., Muswell Hill
Goodwin, Henry, Birmingham	

### MINOR EXAMINATION.

For this there were 196 candidates, the following sixty-seven being successful :

Amos, Samuel E., London	Horne, Percy, Moreton-in-Marsh
Aves, John Wilfrid, Lincoln	Isaacs, David Lionel, Cardiff
Axworthy, Vernon C., Leicester	Kennard, Arthur Moir, Redhill
Barley, Oliver J., Egham	Latty, George A. V., Bristol
Bates, Ernest Oswald, Halifax	Leech, Alfred G. F., Salford
Bates, Mabel R., Edgbaston	Lenton, Edwin A., Thrapston
Bates, Thomas H., Small Heath	Le Rossignol, A. A., Jersey
Benrose, Richard W., Dawley	Lewis, Frank E., Gt. Yarmouth
Bishop, D. F. S., St. Leonards	Lovatt, Edgar, Launceston
Blore, Eli John, Erdington	Middleton, George, Sunderland
Charles, Elizabeth E., Burslem	Morris, Thomas J., Pantygrwndy
Classey, Hampden E., Plymtree	Osborne, F. J., Ashbourne
Cluett, Charles P., Seacombe	Paige, James Edward, London
Cook, William P., Putney	Peake, Arthur P., Earlestown
Cooper, Charles H., Highbury	Plummer, Frank, Luton
Cullington, F. W., Colchester	Prince, Francis B., Derby
Edkins, Robert F., Brighton	Redwood, Alfred McD., Weston
Elliott, Alwyne F., Whittington	Rees, Thomas B., Lower Ystrad
Farrer, Frederick E., Waterloo	Reynolds, William, Bolton
Farrer, Samuel C., Ulverston	Roberts, Hugh William, Bala
Fawkes, Francis W., Streatham	Rogers, Robert L., Rhos
Fletcher, Herbert W., Tadcaster	Roscow, Frank S., Manchester
Follows, Henry W., Tunstall	Shackleton, S. A., Abergavenny
Fox, Edith Pym, Sandbach	Sharples, Beatrice, New Mills
Gibson, Eustace G., Brighton	Snow, William G., Birkenhead
Hamblin, Walter J., Trowbridge	Strachan, Sydney W., Maidstone
Hayes, Percy W., Preston	Sutcliffe, Robert V., Halifax
Heath, Walter V., Manchester	Thomas, E. Roland, Llandilo
Hickson, Oliver E., Newport	Umpleby, L. L., Ramsgate
Pagnell	Watkinson, Harry R., Walkden
Holburn, Mabel M., Sheffield	Whalley, Bishop, Liverpool
Holland, Geoffrey I., Sileby	Wheeler-Brown, L. L., Heme Hill
Holmes, John William, Alford	York, William S., Ventnor
Holyoak, Frederick H., Leicester	Young, Thomas G., Low Fell

## "Diary" Competitions.

THE growth of Empire is never more apparent than in our annual examination of the colonial and foreign postcards sent in for competition for the prizes in connection with *The Chemists' and Druggists' Diary*. This year a casual glance at the addresses on the imposing bundle of orange-coloured missives shows that the *C. & D.* is ever penetrating into new and little-heard-of parts of the world. The growth of Empire synchronises with the increasing circulation of *THE CHEMIST AND DRUGGIST*, or *vice-versa*, and wherever the "live" man in pharmacy is found there also will be found the "live" journal of pharmacy. Selecting a few cards at random we find chemists who are in business in these distant parts of the world taking the keenest interest in our advertisement pages. The *C. & D. Diary*, 1908, has been closely scanned by chemists and druggists, wholesale and retail, and in such divergent parts of the world as Budapest, Malta, Queenstown (South Africa), Cyprus, Mexico, Gympie (Queensland), Tientsin City, Chicago, Uitenhage, Bombay, Selukwe, Cawnpore, Trinidad, Coolgardie, and all parts of Canada, New Zealand, South Africa, and Australia. The mere enumeration of the addresses would take up more space than we have to spare, but the response is gratifying to our *amour propre*.

The opinions of Colonials and foreign subscribers regarding the advertisements in the 1908 *Diary* do not differ very materially from those of home subscribers (see *C. & D.*, January 25, p. 116). The majority think (as did home subscribers) that the pages of

ALLEN & HANBURYS, LTD. (pp. 161-168)

form (1) the most artistically illustrated, and (2) the best

arranged advertisement. The most attractive page advertisement (which is the third query) is voted to be that of

CHRISTY STRONG (p. 87).

In reply to question No. 4, the

LEMCO AND MILK (p. ii)

pictorial device appealed to the majority as the best advertisement of less than a page. The articles that ought to be advertised and the firms that ought to advertise are varied. Singularly enough, as with home subscribers "Vinolia preparations" are by the majority voted as most necessary of being advertised in the *Diary*. Other preparations (and firms) that our colonial and foreign friends would like to know more of are:

Ashton & Parsons, Ltd.  
Atkinson's Perfumery  
Battle's Vermin-killer  
Birch, T., & Co.  
Bovril  
Bromo-seltzer  
Buchtet, C., & Co. (Paris)  
Colgate's Soaps and Perfumery  
Dralle, Georg (Hamburg)  
Elliman's Embrocation  
Elliott Bros., Ltd. (N.S.W.)  
Emerson Drug Co. (Baltimore)  
Gillette Safety Razor Co.  
Grimault & Co.  
Harley, Thomas (Perth)  
Horner & Sons

Izal  
May & Baker, Ltd.  
May, Roberts & Co.  
Mellin's Food  
Newton, Chambers & Co., Ltd.  
Odol  
Parkin, Ness & Co. (Darlington)  
Pharmacie Centrale (Paris)  
Rodin  
Scott's Emulsion  
Seigel's Syrup  
Frederiek Stearns & Co. (Detroit)  
Steedman's Powders  
Yarrow, Chas., & Co.

A careful sifting shows that not one of the competitors guessed five, or even four, of the questions correctly. Only two guessed three right, and to each of the following gentlemen we award 7s. 6d.:

MR. G. P. FORRESTER, 78 Saalbau Street, Darmstadt, Germany.

MR. G. C. DIEFFENTHALER, Bonanza Drug-stores, Port of Spain, Trinidad.

#### POETRY AND PROSE.

Of the limericks that have been sent in response to post-card B, the best was that by

MR. C. M. HOLME, 97 Upper Clapton Road, N.E., to whom we award 10s. Mr. Holme's effort was printed in the Coloured Supplement of January 18 (p. 62). The prize (10s.) for the best suggestion has been given to

MR. J. H. BELL, 62 Coleridge Avenue, Westoe, South Shields.

A similar sum (10s.) has been awarded to

MR. CHARLES EKINS, Heidelberg, Victoria, Australia, for the following comment and suggestion:

The *Diary* is to-day far and away the best advertising medium to chemists in the Colonies. If in addition advertisers could name some local agent where their goods could be seen and bought in small quantities, it would perhaps oftener lead to business—especially in the ease of novelties and goods not generally stocked.

In addition 5s. has been sent to

1. MR. F. VAVASOUR GUY, Federal Dispensary, Kuala Lumpur, Federated Malay States.

2. MR. W. B. RAWLINSON, 86 Jorissen Street, Clifton, Johannesburg, Transvaal.

3. MR. JAMES FERNIE, Box 105, Bethlehem, Orange River Colony.

4. MR. A. V. PARKES, Bunbury, West Australia, for the following:

1. Chemist, chemist, now be honest,  
How does your business grow?  
By leaps and bounds, by hundreds of pounds,  
See those C. & D.s all in a row!
2. The chemist's Bible from Warner to Barnett & Foster.  
" " *Encyclopædia*, embracing all kindred subjects.  
" " *Formulary*, "known and approved."  
" " *Directory*, what to buy, where to buy, and whom to buy from.
3. The *Chemists' and Druggists' Diary*, 1908, is quite up to its usual high standard, and is the finest Christmas present I have received. It is full of valuable information and pharmaceutical knowledge, and I would commend it to every chemist

under the British flag and advise him to subscribe *at once* to the C. & D. and keep up with the times.

4. A hint you may well take from me,  
All my brethren, where'er you may be,  
If a journal you need  
That 'twill pay you to read  
Just subscribe to the old C. & D.

Besides these, crowns have been sent to

MR. F. H. ROWCROFT, 66 Week Street, Maidstone;

MR. D. DAVISON, pharmaceutical chemist, Cromer; for contributions printed in the Coloured Supplements of February 8 and March 28 respectively. Also to

MR. B. DILLON, 33 Parkgate Street, Dublin;

MR. L. J. WOLVERSON, chemist, Hednesford; for the following appreciations:

The *Chemists' and Druggists' Diary* is one of the main pillars of the drug-trade. The most useful suggestion I can make is "all chemists should have one."—L. J. Wolverson, Hednesford.

An eminent first-class prescription,  
With every essential description,  
Bringing with it success,  
Your *Diary* I guess

Is worth twenty times the subscription.

B. Dillon, Dublin.

We have still a large collection of appreciations which we have not yet had the space to publish.

## Association Affairs.

### Halifax Chemists' Association.

A MEETING was held at the Old Cock Hotel, Halifax, on the evening of April 14, Mr. W. E. Smithies (President) in the chair. Among those present were Messrs. H. C. Brierley, J. Swire, W. R. Black, W. R. Fielding, Clement Fielding, G. M. Cobb, T. Briggs (Sowerby Bridge), Percy W. Swire (Hon. Secretary), H. H. Hebden, W. F. Murrell, B. C. Hodgson, Gibson Dixon, and H. H. Woodward. The evening was devoted to consideration of the Pharmacy Bill, after which the Council election was considered, and it was decided, as an association, not to give support to any particular person, but to leave each individual member to act as he likes. A meeting of the "Trade Section" followed, and was adjourned for a fortnight.

### Lancaster Chemists' Association.

A SPECIAL MEETING of this Association was held at the King's Arms Hotel on April 14 to discuss the Poisons and Pharmacy Bill. Members present included Messrs. Arkle (President), Troughton, Angus, Vince, Shattock (Hon. Secretary), Jackson, Gorst, Maxwell, Simpson, Taylor, and Knowles (Morecambe).

AGRICULTURAL POISONS.—As regards Clause 2 of the Bill, the fact was emphasised that the agitation which led to the insertion of this Clause was not a *bona-fide* one, that the sale of virulent poisons would be placed in the hands of persons ignorant of their properties and dangers, and that the number of poisons included would be continually increased. A resolution declaring that a relaxation of the existing regulations would be a grave public danger and is totally uncalled for was passed unanimously. Another resolution was also carried objecting to restrictions being placed on registered chemists unless such restrictions are also imposed upon corporate bodies. The Secretary was directed to forward a letter of thanks to Mr. T. H. W. Idris, M.P., for his services to the craft on the Joint Parliamentary Committee.

## Information Wanted.

Inquiries for the names and addresses of manufacturers, or other trade information, not traceable by reference to the advertisement-pages of "The Chemist and Druggist" and the "C. & D. Diary," or not filed in our private register, are inserted here free of charge. Postcard or other replies to any of the subjoined inquiries (addressed to the Editor "The Chemist and Druggist," 42 Cannon Street, London, E.C.) will be esteemed.

177/46. Address of makers of Galvo pads.

176/23. London agent for "Mum" cream.

177/25. Who are the makers of "T42" crêpe bandages?

176/21. Name of maker of a vaporising-lamp stamped "Patent No. 221,641."



## The Use of Low Temperatures in Chemistry and Pharmacy.

In this article an Engineering Expert tells about the principles of refrigeration and how to apply them to Chemical and Pharmaceutical Processes.

THE chemist who has either gas or steam at his command can obtain whatever heat he wants and practically as high a temperature as he may require, but he is not always as well supplied with the means for obtaining low temperatures. There are many cases where the use of a low temperature, if under perfect control and the temperature and quantity of heat abstracted from the substance under treatment can be regulated to a nicety, is of service. The ordinary freezing-mixtures, consisting of ice or snow and some salt (the cooling action being due to the solution of the salt in the water produced by the liquefaction of the ice or snow), are very expensive if used on a large scale, and are not easily under good control on a small scale. With modern refrigerating apparatus, however, the chemist may obtain any low temperature he pleases, within very wide limits, and he may arrange to abstract as much heat as he wishes from any given substance and may be sure that the arrangements are properly carried out and the apparatus is properly designed and properly worked, the cooling will be effected exactly in the manner and to the extent he wishes. The cooling in modern refrigerating plant, as is well known, is produced by the expansion of certain liquids—viz., anhydrous ammonia, carbonic acid, and sulphurous acid—to the gaseous condition, the gas formed being afterwards compressed and recondensed, and made to do duty over and over again. Ether is also used, but it has dropped out of refrigeration practice except in India.

The temperature produced by the conversion of any of these substances from the liquid to the gaseous condition depends directly upon the amount of the expansion that is allowed to take place, or, in other words, the pressure to which the gas is allowed to be reduced. Thus, in the case of ammonia, a temperature of 0° F. is produced in the gas if it is allowed to expand down to an absolute pressure of 30.37 lb. per square inch, or a gauge pressure of 15.67 lb. per square inch. A temperature of -10° F. is produced when the gas reaches a pressure of 23.77 lb. absolute, -20° F. when the pressure is 18.45 lb. absolute, -30° F. when the pressure is 14.13 lb. absolute, and -40° F. when the pressure reaches 10.59 lb. absolute. With carbon dioxide a temperature of 5° F. is produced in the gas when the pressure is at 342 lb. per square inch absolute, -4° F. when the pressure is 292 lb. per square inch absolute, -13° F. when the pressure is 249 lb. absolute, and -22° F. when the pressure is 212 lb. absolute. With sulphur dioxide a temperature of 5° F. in the gas is reached when the pressure is 11.76 lb. per square inch absolute, -4° F. when the pressure is 9.27 lb., -13° F. when the pressure is 7.23 lb., and -22° F. when the pressure is 5.56 lb. With ether a temperature of 32° F. corresponds to an absolute pressure of 18.24 lb. per square inch, and zero temperature F. to 7 lb. per square inch absolute.

The temperatures mentioned are, as explained, the temperatures of the gases themselves at the pressures named. The temperatures of the substances cooled by the expansion of the gases are usually from 5° to 10° F. above those of the gases. The amount of cooling that the expansion of any of the gases will produce at any temperature depends upon the quantity of the gas that is allowed to take part in the operation. The latent heat of the gas in the case of the three substances at 0° F. is as follows: ammonia, 55.5 B. th. units per lb.; carbon dioxide, 123.2 B. th. units per lb.; and sulphur dioxide, 171.2 B. th. units. But the latent heat varies with the pressure and the temperature of the gas, increasing as the pressure and temperature decrease. Thus,

The latent heat of ammonia at -5° F. is 558.56 B. th. units per lb.; at -10° F. it is 561.61 B. th. units; at -20° F. it is 567.57 B. th. units; at -30° F. it is 573.69 B. th. units, and at -40° F. it is 579.67.

With carbon dioxide, at 5° F. the latent heat is 121.5 B. th. units; at -4° F. it is 126.79; at -13° F. it is 131.65 B. th. units; and at -22° F. it is 136.15 B. th. units.

With sulphur dioxide, at 5° F. the latent heat is 170.82 B. th. units; at -4° F. it is 172.89; at -13° F. it is 174.95; at -22° F. it is 176.99 B. th. units.  
Ether 376 B. th. units per lb.

The B. th. unit, or the British thermal unit, is that quantity of heat that is required to raise the temperature of 1 lb. of pure water 1° F. at the point of greatest density, 39° F.

The expanding gas may be delivered to the apparatus containing the substance to be cooled in any convenient way. Thus, if the vessel containing the substance has a jacket, similar to those employed with steam heating, the refrigerant may be led to the vessel by means of a pipe from the receiver, as explained below, and may be allowed to expand down to the pressure and temperature required for the work in hand, within the jacket. A gauge can be attached to the jacket of the vessel showing the pressure and temperature of the expanding gas. Gauges used with refrigerating apparatus generally have two scales, one showing the pressure in lb. per square inch, and the other the corresponding temperatures, as explained above. The treatment of the expanded gas after it has done its work is slightly different from that of steam employed for heating. With steam heating, provision must be made for carrying off the water formed by the condensation of the steam. In refrigerating apparatus it is usual to convey the gas back to the compressor, though this is not absolutely necessary. Any arrangement by which the expanded gas can be got rid of harmlessly, so as not to increase the pressure within the expansion chamber, would answer the purpose, provided always that non-entrance is ensured of air or other foreign bodies into the refrigerating system. Probably the simplest and the best plan is to follow the course usual with refrigerating plant and to convey the gas back to the compressor. In ordinary refrigerating plant, such as those used for cold storage, the gas is allowed to expand inside coils or grids of pipe, and where this arrangement is convenient for any technical processes, it may be employed.

The pipe carrying the gas away from the vessel to be cooled has to be much larger than that bringing the liquid to the vessel, the volume of the gas being many times that of the liquid, and its volume increasing also as the temperature decreases. Thus in the case of ammonia, the volume of the liquid does not differ very much from that of water, and its volume per lb. is in the neighbourhood of 0.025 cubic foot. The volume of the liquid increases very slightly as the temperature increases, and *vice versa*, but with the quantities dealt with the differences are inappreciable. The volumes of the gas, however, increase very rapidly. Thus, at 0° F., 1 lb. of ammonia has a volume of 9 cubic feet; at -10° F. it has 11.36 cubic feet; at -20° F. 14.48 cubic feet, and so on. Carbonic acid occupies much smaller volumes for given weights, but its volume per lb. also increases as its temperature decreases. The arrangement for cooling a number of apparatus would be similar to that for heating by steam; but two pipes should be led to the neighbourhood of each apparatus, one to carry the liquid and the other to carry back the gas, in place of the one steam-pipe. Each apparatus to be cooled should have its own valve, arranged to control the quantity of gas entering the jacket, if one be employed, or the grid, as might be arranged. The cubical capacity of the jacket or the grid must be sufficient to accommodate the volume of the expanded gas at the lowest temperature to which the gas is reduced. This is a very simple calculation. Also, the surface of the vessel which has done the cooling and to which the substance to be cooled is exposed, must conform with the usual conditions governing the transmission of heat. It will be remembered that heat is transmitted through any substance, such as a metal plate, directly in proportion to the difference of temperature between the two sides of the plate and to the surfaces exposed.

Where the jacket method of cooling substances is employed, the outside of the jacket has to be insulated by one

of the substances employed for the purpose, otherwise a portion of the cooling effect is lost, by the extraction of a portion of the heat required to enable the gas to expand, from the air of the room. The insulating substances are

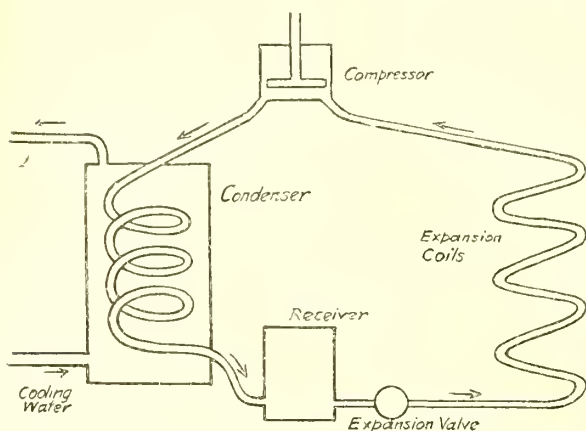


DIAGRAM OF THE COMPRESSION SYSTEM OF REFRIGERATION.

The compressor is at the top, the condenser on the left, the expansion coils on the right. The refrigerant circulates continually from the expansion coils to the compressor, thence to the condenser, thence to the receiver, where there is one, thence through the expansion valve to the expansion coils again. The condenser is usually a tank with a coil of pipe immersed in it. The hot gas comes over to the condenser from the compressor, and is converted into liquid by the cooling water. The cooling water circulates continually through the condenser, entering at the bottom and leaving at the top. The refrigerant, as it becomes liquid, falls to the bottom and passes to the receiver. On emerging through the expansion valve the liquid immediately expands to the gaseous form, and becomes cold, extracting heat from everything around it. It is cold when it enters the compressor, but is heated by compression.

silicate cotton, cork, flake charcoal, magnesia, and others; whichever is chosen it is kept on the outside of the vessel by any convenient arrangement, such as a wooden cover.

The expansion-valve—i.e., the cock controlling the egress of the liquid refrigerant from the pipe in which it arrives into the space in which it is to become a gas—is a very important part of the apparatus. It is carefully made, and is usually arranged so that a very small turn of the handle controlling it gives a comparatively large increase or decrease of the quantity of the liquid passing.

The question of insulation does not enter seriously into the matter of the pipes bringing the liquid or conveying the gas away. The expansion of the agent while it remains in the liquid condition is very small for comparatively large increases of temperature, and if it cannot expand it cannot form into a gas in the liquid-pipe.

Where there is a refrigerating plant on the ground the most convenient arrangement is to take separate pipes—either from the condenser, or, where there is a receiver for the liquid, as in most modern plants, from it—to the different apparatus to be cooled, and to connect the return pipes carrying the expanded gas from all the apparatus to the general suction-pipe leading to the compressor.

In the compression refrigerating plant the expanded gas, after having done its work in the expansion coils, is drawn into the compressor on the suction-stroke. On the return stroke of the compressor the gas is compressed to the degree necessary to enable it to be liquefied by the cooling water available, and it is then forced into the condenser, where it is converted into liquid in the same manner as steam is in the ordinary surface steam condenser attached to steam-engine plant. In modern plant it is usual to have a receiver for the liquid, into which it is delivered from the condenser. The receiver has a gauge attached to it showing the quantity of liquid present in it, and its use gives the attendant a more complete command of the apparatus. The compressor is really a pump *plus* compression for a certain portion of the delivery-stroke. The ordinary pump draws in water or air or gas, as the case may be, on the suction-stroke, and commences to deliver it to the delivery-pipe immediately the delivery-stroke commences. In the

compressor the delivery valve does not open until the gas is compressed to a certain figure.

It will be understood that work has to be done upon the gas in the compressor to enable it to be recondensed, and also that the work depends directly upon the quantity of gas to be dealt with, and inversely upon the temperature to which the gas is allowed to expand, as well as directly upon the temperature of the cooling water in the condenser. In other words, the work the compressor has to perform increases with the quantity of cooling which has to be done, whether the cooling is in quantity at moderate temperatures, or moderate quantity at low temperatures. The lower the temperature to which the gas is allowed to expand, the greater the amount of work that must be done upon it in the compressor. On the other hand, the higher the temperature of the cooling water employed in the condenser, the higher is the pressure to which the gas has to be subject before it can be liquefied by the cooling water.

Where there is no refrigerating plant on the ground, it would pay in many cases to fix a small plant specially for the purpose. Such plants are now made in which the compressor is driven by an electric motor or by a small gas-engine, and this apparatus can easily be fixed in any chemical or pharmaceutical laboratory.

In place of the compressor, with ammonia the absorption system is sometimes employed. Where steam is on the ground for other purposes, the absorption plant is very convenient. Its working is based upon the difference in the solubility of ammonia in water at different temperatures. The ammonia is successively absorbed by a weak ammoniacal solution and expelled by heat from a strong ammoniacal solution, the expelled gas being condensed in the same manner as in the compression system.

In place of employing the gas directly, cooled brine may be used. This is frequently done in cold storage and ice-making, because ammonia would be detrimental to the product if a leakage of the gas occurred. Chlorides of sodium, calcium, and magnesium are employed for making brine; calcium chloride being almost universally adopted. Brine is employed because solutions of salts have lower freezing-points than water, and therefore a brine may be cooled to any temperature that may be desired, and circulated, carrying cold, so to speak, and abstracting heat from the apparatus or substance to be cooled and carrying it back to the cooling plant. With this arrangement the expansion of the gas takes place in a coil of pipe immersed in a tank containing the solution of brine, and the brine is kept circulating through it and the apparatus to be cooled. As with the expanding gas, the brine can be circulated through a jacket fixed upon any apparatus, or it may be

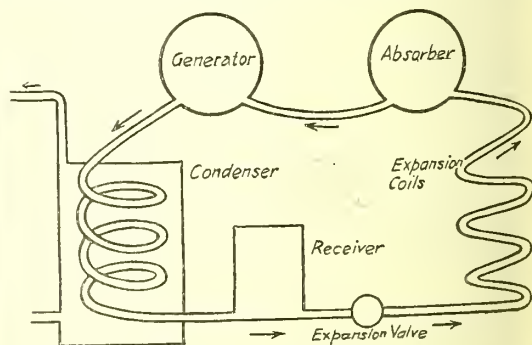


DIAGRAM OF THE ABSORPTION SYSTEM OF REFRIGERATION.

The generator is on the left, and the absorber on the right. The refrigerant is continually circulating from the expansion coils to the absorber, thence to the generator, thence to the condenser, thence to the receiver, where there is one, and thence to the expansion coils again. The arrangement is the same as in the compression system, except that the absorber takes the place of the suction in the compressor, and the generator the place of the compression. The expansion coils may be immersed in a brine tank, as with the compression system.

circulated in pipes arranged in any convenient position. The use of brine also provides a very convenient method of storing cold. It is often arranged to place the expansion-coils inside a comparatively large tank of brine, or to have



large tank of brine connected with the tank in which the expansion-coils are immersed and to cool the quantity of brine contained in the tank to such a temperature that it will furnish sufficient cooling for the work to be done for a

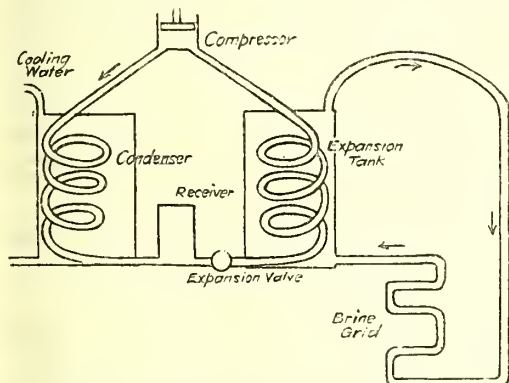


DIAGRAM OF BRINE METHOD OF REFRIGERATION.

The arrangement is the same as in the previous figure, but in addition the expansion coils are immersed in a tank, similar to the condenser, but in place of cooling water circulating through the tank, brine to be cooled circulates. The brine passes to a brine grid, or any arrangement provided, such as the jackets suggested in the article, extracts heat from the surrounding bodies, and carries it to the evaporating tank, where it delivers it up to the expansion coils. There are two circuits in this arrangement, the refrigerant circuit and the brine circuit. For brine storage the brine pipes are enclosed in a tank, or the brine itself is carried in a tank, or the pipes are made larger, so as to hold a larger quantity of brine.

certain time. In butchers' shops, for instance, and similar places, it is a very common arrangement for a cold-brine tank to be provided sufficiently large to keep the cold store below a certain temperature from Saturday to Monday. The brine is cooled on Saturday evening and the produce is placed in the store and not touched until Monday morning. By an extension of the system, the storage of cold brine could be arranged for any convenient time—say, for a week, if necessary. With a tank of cold brine, the pipes leading to the different apparatus to be cooled would be carried from the brine-tank and would return to it, the flow-pipe being taken from the lower part of the tank and the return-pipe led to the upper part.

Refrigerating plant has a manufacturing nomenclature of its own. Plant is sold as 1-ton, 2-ton,  $\frac{1}{2}$ -ton plant, and so on, the meaning being that a 1-ton plant is able to perform the same amount of cooling as 1 ton of ice would in melting in twenty-four hours; or the proportional amount in one hour, one minute, etc. The latent heat of water, the number of B. th. units which have to be abstracted from it before it can be converted into ice, is 124.4 per lb. at 32°F., and therefore 1 ton of refrigeration means 318,976 B. th. units per twenty-four hours, or 13,290 units per hour. A  $\frac{1}{2}$ -ton plant should be able to produce half of this cooling effect, and a 2-ton plant double the cooling effect.

Two cautions should be given here. The plant which does 1 ton of cooling will not make 1 ton of ice. It is usual to reckon that a 1-ton plant will make  $\frac{1}{2}$  ton of ice, and other sizes in proportion. The reason for this is that when making ice from water, the water has first to have its temperature reduced from 60° or 70° F. to 32° F., absorbing 28 to 38 units per lb., and, in addition, after the ice is frozen, it is necessary to lower its temperature some 15° or so, in order that it may be stable. The specific heat of ice being about 0.5, this absorbs another 7 $\frac{1}{2}$  units. In addition to this, there are other laws in practice which have led to the rule given above.

It should also be noted that the size of plant required depends upon the rate at which the work is to be done. If the cooling effect, whatever it may be, can be spread over twenty-four hours, and the total number of heat units required to be extracted is not greater than the figure given above for 1 ton of refrigeration, a 1-ton plant will do it; but if 300,000 heat units, or thereabouts, are to be extracted in twelve hours or six hours, the plant required must be increased, in proportion, to 2 tons or 4 tons.

The American ton, it will be remembered, is 2,000 lb., and therefore the American calculations are all very much simpler. Further, American plant is made to American figures, but the difference between it and English plant is well covered by the margin the prudent man would allow in any plant that he laid down.

## Medical Cleanings.

### Neurasthenia.

DR. DAVID DRUMMOND, of Newcastle-on-Tyne, recently lectured to the Polyclinic on the mental origin of neurasthenia, and the lecture was fully reported in the "British Medical Journal," 1907, ii. 1813. It was most interesting, and the following passage from the etiology of the disease indicates the lecturer's manner and matter:

Even when there is an unmistakable family history of nervous disorders, with possibly a case or two of insanity, the patient in early life may exhibit no striking deviation from the normal; perhaps nothing more than a certain lack of self-confidence. Sooner or later, however, there is shown a tendency to attach undue importance to matters that affect the personal feelings, and this strongly affects the subsequent course of affairs. The patient becomes hypersensitive, and gradually surrenders control of his thoughts at will; instead of choosing a line of thought and concentrating upon it, he is dominated by some personal matter, broods over some real or fancied trouble, allowing it to engross attention to the exclusion of all other matters of interest. The habit of indulging in introspection grows upon him, and from being a useful and wholesome practice in the main as exercised by a healthy, well-balanced mind, it becomes a source of danger when it defies control, and then perverts, hampers, and circumscribes mental action. At first the neurasthenic is conscious of a struggle to maintain his interest in affairs outside his own personal life, but by an effort he can do so, and to this end he is helped by continuing at work, which, even though it be uncongenial, serves to distract his attention from himself. Later on he fails to make the effort, or some illness or shock breaks down what little control he still possessed, and so the natural inclination usurps ascendancy: he becomes more and more self-centred and despondent, and loses the power of forming an intelligent judgment upon matters that relate to his health.

The lecturer also discussed the diagnosis and treatment of the disease. On the latter point he said his own experience goes to show that the point of chief importance is mental treatment administered under the most favourable conditions, of which the first essential is isolation under the doctor's control. The treatment is a sort of education with encouragement.

### A Broken Thumb.

MR. R. SUNNER, pharmaceutical chemist, 31 Patrick Street, Cork, sends us the following recent example of a radiograph showing a dislocation of the thumb-joint. It



is taken by the "plastic" process of preparing x-ray pictures. The detail of the bones is very well shown in the original.

## New Books.

These notes do not necessarily exclude subsequent reviews of the works. Any of these books printed in Great Britain can be supplied, at the published price, to readers of this journal on application (with remittance) to the Publisher of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

Austin, L. S. *The Fire Assay of Gold, Silver, and Lead.* 9x6. Pp. 88. 4s. 6d. net. (E. Walker.)

Austin, L. S. *Metallurgy of the Common Metals.* 9x6. Pp. 410. 17s. net. (E. Walker.)

Banham, George A. *Table of Veterinary Posology and Therapeutics.* 3rd edit. 6½x4. Pp. 236. 3s. 6d. (Baillière.)

Borden, S. W. *How to Check Electricity Bills.* 12mo. 2s. net. (Spon.)

Bottomley, H. Holford. *Successful Salesmanship.* 7½x5. Pp. 268. 3s. 6d. net. (Simpkin.)

Chemical Society. *Annual Report on the Progress of Chemistry, 1907.* Vol. IV. 8½x5½. Pp. 362. 4s. 6d. net. (Gurney & J.) [Covers the literature of 1907, and comprises the following articles:

GENERAL AND PHYSICAL CHEMISTRY. By Alexander Finlay, M.A., D.Sc., Ph.D.

INORGANIC CHEMISTRY. By Hugh Marshall, D.Sc., F.R.S.

ORGANIC CHEMISTRY (Aliphatic Division). By H. J. H. Fenton, M.A., Sc.D., F.R.S.

ORGANIC CHEMISTRY (Homocyclic Division). By Cecil H. Desch, D.Sc., Ph.D.

ORGANIC CHEMISTRY (Heterocyclic Division). By J. T. Hewitt, M.A., D.Sc., Ph.D.

STEREOCHEMISTRY. By H. O. Jones, M.A., D.Sc.

ANALYTICAL CHEMISTRY. By Alfred Chaston Chapman, F.I.C.

PHYSIOLOGICAL CHEMISTRY. By W. D. Halliburton, M.D., F.R.S.

AGRICULTURAL CHEMISTRY AND VEGETABLE PHYSIOLOGY. By A. D. Hall, M.A.

MINERALOGICAL CHEMISTRY. By Arthur Hutchinson, M.A., Ph.D.

RADIO-ACTIVITY. By Frederick Soddy, M.A.

The volume extends to 362 pages, and is valuable to all who do not pretend to follow closely and week by week these branches of chemical science.]

Bocquillon-Limousin, H. *Formulaire des Médicaments Nouveaux pour 1908.* 6½x4. Pp. 332. 3f. (Baillière et fils, 19 rue Hautefeuille, Paris.) [A large number of new remedies have been added to this edition. As showing the usefulness of the book we may note the following among the additions: Albargine, arheol, aspirothene, blenal, bornyval, boroverline, bropiase, citrocalle, cystopurine, euovodine, euscopol, forgenine, formurol, idrol, iodoforme, iodyline, isarol, lentine, paraxine, phenylepropionic acid, quinine (phlytinate of), quinaphenine, salophene, tallianine, lannogene, theolactine, theophorine, vanadic acid, and vioform.]

Pilcher, R. B. *List of Official Chemical Appointments.* 8½x5½. Pp. 172. 2s. (Institute of Chemistry, 30 Bloomsbury Square, London, W.C.) [This is the second edition of a very useful compilation by the Registrar of the Institute of Chemistry. The scheme of the book is the same as the one published in 1906, the information having been corrected and brought up to date. A new feature is an alphabetical list of names, so that it is easy to turn up the appointments of any specified chemist. The list of analysts under the Sale of Food and Drugs Acts and the Fertilisers and Feeding-stuffs Act is distinctly useful, and there is, in addition, much information about other appointments which is not elsewhere obtainable.]

Smith, J. W., LL.D. *The Law of Private Trading Partnership, including the Limited Partnership Act, 1907.* Pp. 142. 7x4½. 1s. 6d. net. (Effingham Wilson.) [This is a most useful and interesting book on a department of law that every partner should know something about. The treatise was first written in 1859, and from time to time, while 30,000 copies have been sold, Dr. Smith has brought it up to date. Now he has added a chapter on the Limited Partnership Act, 1907, this being a concise summary of the Act, and the author is of opinion that the limited-partnership principle should be of service to British trading.]

Warwick, F. J., and Tunstall, A. C. *First Aid to the Injured and Sick: An Advanced Ambulance Handbook.* 5th edit. 6½x4½. Pp. 252. 1s. net. Limp cloth, with flap. 2s. 6d. (Wright, Bristol.) [We have noted the previous edition of this book, which is a favourite one with ambulance classes. The present issue is improved in many ways, and is tightly packed with information. A very attractive cover is provided for the shilling edition.]

## Trade-marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with C. N. Dalton, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form No. 7, cost £1, obtainable through any money-order office.

(From the "Trade-marks Journal," April 1, 1908.)

Label device of man with fan; for chemicals in Class 1. By Leopold Casella & Co., 19 Liebigstrasse, Frankfurt-on-Main. 299,079.

"HORECO"; for a freezing composition in Class 1. By Sir W. A. Rose & Co., 66 Upper Thames Street, London, E.C. 300,082.

"HYPONO"; for a chemical in Class 1. By W. B. Rogers, 6 New Square, Cambridge. 300,560.

"NITRO-BACTERINE," and label device of the globe and lighting; for chemicals in Class 2. By W. B. Bottomley, 35 Downside Crescent, Hampstead, N.W. 298,574.

"SAN-KRESL"; for chemicals in Class 2. By J. Richardson & Co. (Leicester), Ltd., 10 Friar Lane, Leicester. 300,739.

"SANVIS"; for a medicated tablet. By E. E. Evans, 10 Victoria Square, Aberdare, South Wales. 297,395.

Picture of Cupid on wheels; for chemicals in Class 3. By Schliemann's Oil and Ceresine Co., Ltd., 25 Leadenhall Street, London, E.C. 298,925.

"ONTOWELL"; for ointments and medicines in Class 3. By Mary E. McLeod, 39 Upper Parliament Street, Liverpool. 299,453.

Device of hand grasping a magnet; for medicinal preparations in Class 3. By the Kankure Herbal Remedies Co., Ltd., 99 Normanton Road, Derby. 299,791.

"KAN-KUZA"; for a medicinal preparation in Class 3. By the Kankure Herbal Remedies Co., Ltd., 99 Normanton Road, Derby. 299,526.

"LIGHTNING"; for goods in Class 3. By Edward Cook & Co., Ltd., East London Soapworks, Bow, London, E. 299,843.

"ALACET"; for a medicine. By Nitritfabrik Aktiengesellschaft, 5 Landjaegerstrasse, Copenick, near Berlin. 300,013.

"EZMA"; for medicinal preparations in Class 3. By C. K. Bransby, Grove House, Grove Street, Wilmslow, Cheshire. 300,285.

"NOVODRENNINE"; for goods in Class 3. By Parke, Davis & Co., 50-54 Beak Street, Regent Street, London, W. 300,370.

"GRAPELAX"; for a medicine. By Grapelax, Ltd., 379 Strand, London, W.C. 300,384.

"PELMROSE OINTMENT" (label device); for an ointment. By F. S. Chappell, 104 Hythe Street, Dartford, Kent. 300,398.

"MOTHER'S ADVICE," and picture device; for a medicine. By G. E. Dixon, 47 Holborn Viaduct, London, E.C. 300,537.

"PEPSINETTES"; for goods in Class 3. By E. R. Mitchell, 157 West George Street, Glasgow. 300,464.

"IETHA-SAL"; for chemicals in Class 3. By the Anglo-Indian Drug and Chemical Co., 16 Market, Bombay, India. 300,327.

"TUR-AL"; for medicines in Class 3. By A. Harburn, 16 Newgate Street, Bishop Auckland. 300,838.

"TRICLEANA"; for medicines in Class 3. By J. B. Thomson, Fernlea, Craigton, Glasgow. 300,918.

"HOLADIN"; for chemicals in Class 3. By Fairchild Bros. & Foster, Fairchild Building, Washington and Laight Streets, New York, U.S.A. 300,980.

"VERNA"; for gums and gum-resins. By Celeste Joly, 46 Hermitage Road, London, N. 299,166.

"EMU" and "IEX"; for linseed oils. By J. R. Peace & Co., 39 Oldhall Street, Liverpool. 300,266, 300,267.

Device of a ship surmounting the globe; for liquid indigo. By M. Samuel & Co., 19-21 Billiter Street, London, E.C. 300,353.

"AKOU-MASSAGE" and "AKOU-VIBRA" with facsimile signature of applicant in each case; for instruments to cure deafness. By A. M. Aronsberg, 9 Bentinck Street, Cavendish Square, London, W. 298,163, 298,164.

"ANTINEURASTHIN"; for goods in Class 42. By Dr. Karl Hartmann Gesellschaft mit Beschränkter Haftung, 36 Magdeburgerstrasse, Berlin. 300,035.

"GLOSSOL"; for perfumery, etc. By P. G. A. Smith, St. Keverne, Tate Road, Sutton, Surrey. 300,030.



## South African Plants:

Notes on those of Medicinal Interest.

By G. E. OLIVER.

### THE LASIOSOPHONS (Kaffir, *isi-Dikili*).

THESE plants, which occur as shrubs or shrublets, belong to the N.O. *Thymeleaceæ*, and are much esteemed among the natives for their tonic and blood-purifying properties, and also in the treatment of certain kinds of sore throat.

According to Andrew Smith one or two species are used as antidotes to snake-bite poison. Sims mentions that there are about twelve ill-defined species recognised. The bark of all of them is very tough, and a piece incised at the base of



LASIOSOPHON MEISNERI.

(The habit of growth is decumbent and not erect as shown here.)

the stem of the larger species rips off clean to the extremities of the twigs without breaking. It is therefore a convenient substitute for string where the latter is not to be had, and the natives use it for tying up bundles of reeds, etc.

The different species vary in size, the smallest standing only a few inches from the ground, and the largest growing



LASIOSOPHON ANTHYLLOIDES.

to height of 6 or 7 ft. The flowers are yellow, of varying sizes, according to the species, and appear in heads surrounded by involucre bracts. The leaves are small, narrow and more or less lanceolate in shape. The activity of the plant resides chiefly in the root-bark, and its action, whatever may be its virtue, is prolonged. About fifteen or

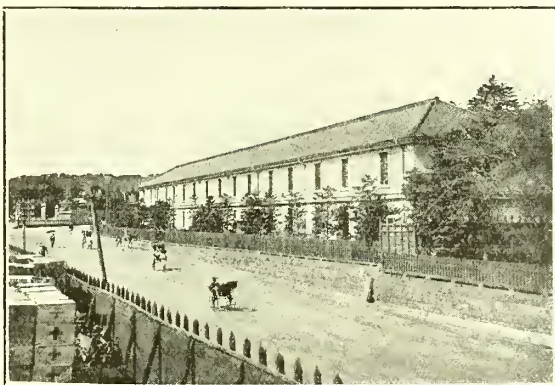
twenty minutes after chewing a fragment (especially of *Lasiosophon Meisneri*) a tingling sensation on the tongue and tonsils is experienced, which increases in intensity until one has the sensation of having eaten a particularly hot curry. This effect does not entirely disappear until after about twenty-four hours.

A chemical examination of the root-bark shows it to contain a very small quantity of volatile oil, tannin (to which its virtue in sore throat would perhaps be attributable), and a resin, and it is apparently to this resin that its scorching properties are due, as it produces the sensation above referred to on the tongue, though it does not yield it to acidulated water when boiled with the latter. It contains no alkaloid. The root of *Lasiosophon* is the chief ingredient in at least one of the much-advertised African remedies for impurities of the blood, and its efficacy in certain chronic skin-diseases would seem to be beyond doubt. Certain colonists of repute who are acquainted with the uses of the root testify almost extravagantly to the wonders it has worked.

A parcel is being shipped to Dr. W. Harrison Martindale, London, for investigation.

## JAPANESE ARMY MEDICINES.

THE war which Japan had with Russia revealed to the whole world an almost unique fact—viz., that the medical organisation was practically perfect. This is a department of military arrangements which, within the memory of man, has broken down in almost every great war of modern times; so that it is to the credit of the



ARMY MEDICAL WAREHOUSE, TOKIO.

Japanese Empire that voluntary medical assistance from other nations was not called for. The fact lends interest to the photographs sent to us by a Japanese pharmacist, the first one showing the exterior of the warehouse of the Medical Corps of the Japanese Army at Tokio, and the second a view of one of the packing-rooms, where women



PACKERS AT WORK.

are busy packing in tin boxes the celebrated prophylactic pills of creosote, which did so much to save thousands of Japan's soldiers from fatal dysenteric attacks.

## Business Hints.

### Ideas.

THE chemist who wishes to keep up to the times is ever on the look-out for attractions to his establishment. Here are several which may have escaped the attention of some. A notice in the window as follows:

The following may be used free within by purchasers:

1. Nurses' Directory—name, address, and terms.
2. Local Directory.
3. Local Time-table.
4. Pen, Ink, and Note-paper.

It is a very useful idea, and one likely to prove an asset in case of the sale of the business, to keep a directory for the names and addresses of all ordinary customers and one for all photo customers. When any important literature comes in one may send it to such customers.

Another good idea is to have a revolving stand for the window. It is wonderful what an attraction such a thing is, and if the goods displayed thereon are saleable, the stand will stimulate the interest and show off the goods to full advantage—e.g., a pyramid of cut-glass bottles or sprays, well lighted, will scintillate and glisten in quite a tempting way.

### Advertisement Matters.

GET an old price-list and paste in a sample of every advertisement you have printed. This serves as a record of your advertising, and is useful for serial "follow-up" advertisements, so that you can run your arguments from one to another.

Typewritten letters carefully worded, and with a few prices, lead to business if sent to your own selected customers and prominent residents.

Bill by the errand-boy. In his leisure time it should be possible to cover the whole district, say, of a 20,000 population town at least four times a year. Each handbill should be reasonable.

When you bring out a new speciality employ four or more sandwichmen each Saturday in the main streets for one month. They are not expensive, and very effective.

Free samples of specialities are one of the best forms of advertising, when worked carefully and with discrimination. The best way to distribute them is over the counter.

Change your windows every week, and don't crowd a sample of all your stock into it. A display of hand specials, hair specials, complexion specials, foods, baby needs, cod-liver oil and its correlatives, put in separate displays, is the most effective form of advertising in most windows. Ticket well.

### Smart Handbills.

ONE of the most "live" chemists in the Potteries is Mr. C. J. Wain, pharmaceutical chemist, Newcastle, Staffs. We have recently received two handbills issued by Mr. Wain, both of which are distinctly original. A small bill attracts by the outstanding legend, "Have you ever seen A POLICEMAN off duty COLLARED AND CUFFED in linen starched by WAIN'S GLAZING STARCH." The other, a larger handbill with pictures of Mr. Wain himself in top left-hand corner and his shop (4 in. by 3½ in.) below, is a personal appeal, which is bound to be appreciated by the fair-minded customers. It runs:

ALL THE PEOPLE,  
WHEN THEY WANT A CHEMIST,  
or Doctor, or Lawyer, want to  
SEE THE MAN HIMSELF!

Not a Syndicate, Partner, or portion of a company; the managing director may be a shop-fitter or carpenter for all they know; but a thoroughly qualified, up-to-date, business man, smart, practical, and progressive, who, having passed the necessary Examinations held by the Pharmaceutical Society of Great Britain, is competent to consult in all matters relating to Chemistry, Botany, Materia Medica, Pharmacy, and the Dispensing of Physicians' Prescriptions, and who is ever on the alert for all that is new and worthy of attention, be it the latest remedy known to medical science or a toilet-preparation.

This is the sort of fighting attitude that it would pay more chemists in business to adopt. For such chemists "company pharmacy" has no terrors.

## Illustration in Advertising.

By F. A. DEGEN.

IMMENSE strides have been made during recent years in the art of illustrating and in its practical application to advertising, as may be seen by a glance at the circulars, booklets, magazines, and newspapers of to-day, and comparison with those of ten years back.

Pictures were at one time a luxury, and were used sparingly by the advertiser. They are now a necessity. Daily their importance becomes more apparent. Therefore the advertiser must study how best to use them.

Commercial art is now a factor in business life. It is not a mere passing phase—it has come to stay. The reason for this is not hard to find. To-day everybody is in a hurry, and a subject must now be presented in a manner which will attract immediate notice, otherwise it will be overlooked. To catch this transient attention, the advertiser must supply something which is striking, and will make even the most preoccupied and hurried person pause to investigate—something which may perhaps sow the seeds of an impression which will bear fruit by the time that the need arises for the article advertised. And what can do this more effectively than a picture?

The spectacular is a necessary element in advertising. That is what attracts the eye; and through the eye the mind sees. Avoid commonplace illustrations. If your view of a subject is unique, it will show in your work. An effort at originality is useless: originality is always spontaneous. If you run short of ideas yourself, buy someone else's.

Don't try to be funny. Remember dignity need not mean dullness. Better no illustration than one which lacks three essentials: appropriateness of subject, truthful drawing, artistic execution. Beware of thinking that any picture will answer for your advertisement, and so losing valuable space. The illustration in your advertisement must illustrate the article which you advertise, and demonstrate its practical use. Your picture must express action. In this respect the illustrations to-day differ from those of a few years ago. Ordinary stuck drawings no longer attract. For example, take a tooth-paste. A cut showing a box of paste goes unnoticed, but a pretty woman in the act of cleaning her teeth with X—'s paste—that's real life, and arrests attention.

Purely detail illustrations are permissible in catalogues and journals reaching only the trade; but illustrations which appeal to the general public must show action. Exact illustrations have their uses. They, too, ought to be combined with action whenever possible.

In introducing a new mechanical device, such as a surgical belt, an elastic stocking, etc., an illustration is a valuable aid to the advertiser. It shows at a glance just how the article must be adjusted, and the possible advantages to be obtained by its use. In this case an illustration is better than any written arguments. "Some things," says a veteran advertiser, "can be described by words better than by a picture. Some can be shown by illustration better than by words. Most articles can be represented better by both illustration and text." In this, as in everything else, judgment must be used.

Some illustrations drive away trade. Many of the photographs which are published of people who have benefited from certain specifics—headache-cures and the like—represent the writers of the testimonials as such miserable-looking creatures that it is absurd to think that anyone would buy the article advertised on their recommendation. The irony of the thing is like that of a bald man recommending a hair-tonic.

It is plain also that if the picture does not do the subject justice it decreases the value of the article advertised. Its effect is to prejudice the possible buyer against the goods. A useful thing to bear in mind is that the value of an illustration lies in what it conveys to those who see it, not in what the seller thinks it represents.

Ornamental designs in the form of borders must be carefully chosen. They are valuable, because they assist in drawing the eye to the advertisement. Border, illustration, type display, and reading matter must all agree in style and blend in tone. The advertiser must know the



quality of the paper on which his illustrations are to appear. Many advertisements are spoiled by printing coarsely-shaded cuts on enamelled or calendered paper, and fine-lined cuts and half-tones are useless for papers of ordinary character, which, on account of circulation, must be printed rapidly. Fine half-tone engravings must be "made ready"; this process may take from six to thirty-six hours, and even then the machine has to be stopped every hundred copies or so to clean the blocks. Advertisers should therefore study the nature of the medium in which their illustrations are to appear, and select accordingly. If the newspaper is used, zinc etchings from pen-and-ink drawings reproduce well. For magazines and booklets, upon which time can be spent, half-tone illustrations can be used effectively.

Remember, much of the success of an illustrated advertisement lies in the idea, its originality, its appropriateness, but this all means nothing unless the illustration itself is done by an artist of ability. Choose your artist carefully. Keep in mind that artists are specialists and can seldom handle two lines equally well. The man who draws a charming figure may make a dead failure when he draws a piece of mechanism or when he designs a border. It costs no more to reproduce a good picture than to print a poor one; the same space is used, and space is money. Don't economise in your artist.

To conclude, be earnest, spend time and thought before you present a picture to the public. In this way you will be sure to increase immeasurably the value of your advertisement.

## Scientific Progress.

Temperatures under this heading are on the Centigrade scale.

**Cholesterin Salicylic Ester** ( $\text{OH.C}_6\text{H}_4\text{COO.C}_{26}\text{H}_{43}$ ) has been obtained by L. Golodetz by slowly heating 1 part of cholesterin with 2 parts of salicylic acid at  $160^\circ$  to  $170^\circ$ , and washing out the liquid mass with alcohol. The ester, when recrystallised from ether-alcohol, forms large white crystals, which melt at  $173^\circ$  and dissolve with difficulty in alcohol, though much more easily in ether and chloroform.—*Chem. Ztg.*

**Cinchona in Germany.**—L. Rosenthaler, in a communication to the Deutsche Apotheker-Verein ("Apoth. Zeit."), argues for a better cinchona than *succirubra*, but if it is retained he suggests (1) that root-bark should be included, as it is richer in alkaloid than the stem-bark, and excellent preparations can be obtained from it; (2) a method of determining cinchotannic acid should be given; (3) the minimum alkaloidal content should be raised to 6.5.

**Linarin and Pectolarin.**—T. Klöbb has isolated two new glucosides from the flowers and leaves of *Linaria vulgaris*. Linarin, the first of them, was termed by Schlagdenhauffen and Reeb linarinic acid because it was soluble in alkali, but the author and Fandre found that it is not soluble in alkali carbonate and ammonia, and is therefore not an acid. Linarin is a very stable glucoside which is decomposed by 10-per-cent. hydrochloric acid only at  $100^\circ$  to  $110^\circ$ , but with concentrated acid it decomposes without heat. It is not affected by weak acids at water-bath temperature. The second glucoside, pectolarin, which is described by Schlagdenhauffen as a gelatinous, pectinous substance, can be hydrolysed by weak acids, and only differs from linarin in containing one molecule more of water, and changes when boiled with water for some time into crystalline linarin.

**Rhodophyllin.**—A. Willsätter and A. Pfannenstiel have already commented on a green soapy product of chlorophyll, which they termed chlorophyllin. This resembles chlorophyll, but possesses slightly acid properties. By heating chlorophyllin with alcoholic potash in a silver vessel, potash rhodophyllin was obtained, from which the rhodophyllin could easily be separated, and crystallises in beautiful, shining, deep blue prisms. It dissolves readily in alcohol and slowly in ether, with a bluish-red colour and blood-red fluorescence. Rhodophyllin salts also crystallise well, especially alkali salts. Rhodophyllin was obtained from the chlorophyll of plants belonging to *Chlorophyceae*, *Musci*, *Filices*, *Equisetinae*, *Gramineae*, *Urticaceae*, *Saxifragae*. As rhodophyllin is a magnesium combination, this is also a proof that magnesium forms a considerable constituent of plant chlorophyll. Analysis shows it to correspond to the formula  $\text{C}_{55}\text{H}_{80}\text{O}_4\text{N}_2\text{Mg}$ .

## Practical Notes and Formulae.

### Cough-remedy.

Heroin	...	...	...	...	gr. ij.
Syrup of wild cherry	...	...	...	...	3iij.

Mix.

A teaspoonful every two or three hours.

### Cold-remedy.

Extract of cascara sagrada	...	...	gr. x.
Powdered capsicum	...	...	gr. xv.
Powdered camphor	...	...	gr. x.
Phenacetin	...	...	3j.
Quinine sulphate	...	...	gr. xv.

Mix and make into ten tablets.

### Face-powder.

Powdered talc	...	...	3v.
Rice-flour	...	...	3viiss.
Precipitated chalk (fine)	...	...	3v.
Corn-starch	...	...	3xxv.
Powdered orris	...	...	3iv.
Perfume	...	...	a sufficiency

### Hair-tonic.

Infusion of sage	...	...	3xij.
Resorcinol	...	...	gr. xv.
Quinine sulphate	...	...	gr. xv.
Jamaica rum	...	...	3iv.
Antiseptic solution	...	...	3ij.
Glycerin	...	...	3ss.

The infusion of sage (1 in 16) is made with witchhazel distillate instead of water.

### Tincture of Digitalis from Dried and Fresh Leaves.

A. ASTRUC and E. DEJEAN have determined the proportion of so-called "French Digitalin" (which they compare with Schmiederberg's or Kiliani's digitoxin) in tinctura digitalis prepared from dried leaves (1 in 1 of 60-per-cent. alcohol) and from fresh leaves (1 in 1 of 90-per-cent. alcohol), and find that the tincture from dried leaves is an excellent pharmaceutical preparation, containing 80 per cent. of the available "digitalin" in the leaves, which was almost four times as much "digitalin" as was found in the tincture from fresh leaves.—*Journ. Pharm. et Chim.*

### Toilet-lotion.

Tragacanth	...	...	3j.
Tincture of benzoin	...	...	3iv.
Boric acid	...	...	3ij.
Carbolic acid	...	...	3iss.
Starch	...	...	3j.
Glycerin	...	...	3xij.
Otto of rose	...	...	℥XL.
Oil of lavender	...	...	3iss.
Extract of rose	...	...	3ij.
Rectified spirit	...	...	3xxiv.
Water to	...	...	3cxxxvij.

Dissolve the boric acid in 64 oz. of water, add the tragacanth, and macerate for twenty-four hours; strain through cloth. Mix the glycerin and starch, and heat them until nearly transparent jelly results; when cool, add to the tragacanth-mixture, mix thoroughly, add the carbolic acid and the spirit in which the extract and oils have been dissolved, and mix all thoroughly.

### Sodium Oleate Pills.

UNDER various fancy names sodium oleate (or common soap) has been advanced, alone and in combination, as a remedy for gall-stones. Sodium acid oleate, as has been already shown (*C. & D.*, 1907, ii, 650), is not an acid salt but simply oleate in the manufacture of which excess of oleic acid has been employed to avoid the presence of free alkali. Prescriptions for pills of sodium oleate and acid oleate are not infrequent, and a satisfactory method of making the oleate into pills is a desideratum. The usual dose, in pill, is 2 grains, and the following formula makes a good mass:

Sodii oleat.	...	...	gr. xxiv.
Pulv. glycyrrh.	...	...	gr. xij.
Pulv. tragac. co.	...	...	gr. vj.

Mix thoroughly and mass with a drop or two of water. Divide into twelve pills.

The pills, either plain or varnished, keep well and do not lose their shape.

## Personalities.

MR. G. C. ROW, chemist and druggist, High Street, Braintree, has been appointed a J.P. for the county of Essex.

MR. CYRIL C. MURRAY, manager in Australia for Messrs. Parke, Davis & Co., is with Mrs. Murray *en route* for a visit to England.

MR. J. BROOKS, chemist and druggist, Flowergate, Whitby, has been re-elected a director of the Whitby Mutual Plate-glass Insurance Society.

MR. CHARLES SISSMORE TOMES, F.R.S., F.R.C.S., L.D.S., has been reappointed a Crown representative on the General Medical Council for five years.

MR. W. S. GLYN-JONES, barrister-at-law, has been appointed Vice-Chairman of the General Purposes Committee of the Middlesex County Council.

MR. CHARLES BING, pharmaceutical chemist, St. George's Street, Canterbury, has been elected a Vice-Chairman of the Canterbury Chamber of Commerce.

MR. W. R. FOWLER, pharmaceutical chemist, Southsea (now retired from business), has been elected Chairman of the Portsmouth Board of Guardians.

MR. F. J. GIBSON, chemist and druggist, Darlington Street, Wolverhampton, has been elected Vice-Chairman of the Wolverhampton Board of Guardians.

MR. FREDERICK JACKS, chemist and druggist, High Street, Stone, Staffs, has been unanimously elected Chairman of the Stone Urban District Council.

MR. W. R. SELLECK, pharmaceutical chemist, has been elected Chairman of the Stourbridge Urban District Council and a member of the Higher Education Board.

ALDERMAN W. G. CROSS, pharmaceutical chemist, 70 Mardol, Shrewsbury, has been appointed by the Town Council a Corporation representative on the Joint Burial Board.

MR. W. H. DIXON, chemist and druggist, has been elected Chairman of the East Grinstead Urban District Council, and thus becomes a justice of the peace *ex officio* for the county.

MR. A. F. BARNARD, chemist and druggist, Columbia Road, E., and a prominent member of the Bethnal Green Borough Council, is spoken of as the next Mayor of the borough.

ALDERMAN J. A. STEWARD, chemist and druggist, Worcester, has been reappointed by the City Council a Governor of the Grammar School, and has also been elected a Guardian of the Hop Market.

MR. T. J. CURPHEY, chemist, Kingston, Jamaica, West Indies, is now in London in connection with the lawsuit arising from the earthquake and consequent fire losses two years ago. Mr. Curphey has been over thirty years in business in Kingston, but has lately confined himself to manufacturing and wholesale.

MR. F. H. ALCOCK, of Birmingham, informs us that his supply of belladonna-seeds was exhausted on Saturday, April 18, when he sent some to all who up to that time had replied to his note in the *C. & D.* of that date. It was a bigger task than he anticipated, for it took five persons two hours to prepare and despatch the packets of seeds.

MR. E. F. SHACKLEFORD, who represents in London and the suburbs Messrs. Cresswell Bros., sponge importers, Red Lion Square, London, W.C., has not severed his connection with this well-known house. A rumour to this effect appears to have arisen from the fact that his father, Mr. E. J. Shackleford, who was the firm's country traveller for many years, has recently resigned his appointment on account of a breakdown in health.

THE KING has approved the following appointments, consequent on the retirement of Sir Thomas Pittar, K.C.B., C.M.G., Chairman of the Board of Customs, which will take place on account of age on May 31 next:

MR. L. N. GUILLEMARD, C.B., Deputy-Chairman of the Board of Inland Revenue, to be Chairman of the Board of Customs.

MR. E. E. NOTT BOWER, Commissioner of Inland Revenue, to be Deputy-Chairman of the Board of Inland Revenue.

MR. J. P. CROWLY, Principal Clerk in his Majesty's Treasury to be Commissioner of Inland Revenue.

Sir Thomas Pittar has held the position since 1903, and was knighted in 1905. He took part as an expert in the Brussels Sugar Conference in 1901-2. He is a statistical authority and besides being principal of the Statistics Office of the Board of Customs, edited the Board of Trade Returns from 1889 to 1900. Mr. Guillemard, who is succeeding him, graduated at Cambridge from Trinity College, and entered the Treasury in 1888. He was private secretary to Sir W. V. Harcourt and to Sir M. Hicks-Beach from 1892 to 1902, and in the latter year was appointed deputy-chairman of the Board of Inland Revenue.

MISS KATHLEEN SPENCER, dispensing chemist, High Wycombe, is the subject of a sketch, with portrait, in "Woman's Life" for April 18. To the interviewer she remarked:

Lady chemists are becoming very popular, especially in the country, where personality tells; one soon begins to know one's clients and to take an interest in them.

## At the Counter.

IN SOUTH AFRICA.—Messrs. Carter, Stacey & Co., of Bloemfontein, had the following order presented by an educated native:

DEAR SIR.—I shall be very pleased to to Send me a box o peps also please do acknowledge me if you have what we call the x rays, and state the price thereof.

The last-mentioned item was "out of stock." A Chinaman on the Rand, who owns a No. 4 cartridge kodak and has his exposures developed by professionals, recently had word of this kind to the value of 11s. 3d. done by Mr. George F. Pirie, chemist, Germiston. The guileless Chinese sent 3s. the balance to be paid "bimeby next time." This did no suit Mr. Pirie, however, who declined to open an account and said so. The reply was as follows:

Send per bearer the whole thing you done, now, I like to get rid of them in future. How much more I.O.U. 8s. 3d. Alright, here are, Yrs. fully, F. C. KING.  
Crisp, concise, and satisfactory.



"I WANT a bottle o' them pills like I got for my mother t'other day."

"Ah! I know. Then they did her good, did they?"

"I don't know anythin' about that; I know they just fit a bit of glass tubing I sneaked from you when I got t' pills!"



## Trade Report.

**NOTICE TO BUYERS.**—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C., April 23.

**T**he disturbed condition of the markets due to the influence of the holidays has had the usual effect of curtailing buyers' requirements, especially those from important provincial centres, but by next week business will have resumed its normal proportions. In fine drugs and chemicals the chief alteration is a decline in codeine and its salts, due partly to the defection of a Continental maker, while the establishment of a "falling clause" on this and morphine is a new departure. Citric acid is much higher, as anticipated. Chrysophanic acid has been reduced, and there is keen competition in glycerin. Among heavy chemicals sulphate of ammonia is very firm. Liverpool copper sulphate has eased 10s., the principal shipping season having closed. Arsenic is lower again, and soda nitrate is also weaker. Sulphur has advanced in Sicily. Crude drug alterations include an advance in jalap and Mexican scammony root; stavesacre is firmer; taraxacum and belladonna remain dear. Senega sells steadily, but cascara continues flat. Among essential oils star aniseed is easier; lemon and bergamot tend firmer. The chief alterations are indicated below:

Higher	Firmer	Easier	Lower
Citric acid	Bergamot oil	Aniseed oil	Arsenic
Jalap	Lemon oil	(star)	Chrysophanic
Scammony root	Stavesacre	Benzols	acid
(Mexican)	seed	Coconut oil	Codeine and
		(Ceylon)	salts
		Copper	Helibore
		sulphate	(black)
		(Liverpool)	Pepper
		Japan wax	Turpentine
		Soda nitrate	

### Cablegrams.

**NEW YORK, April 15:**—The drug-market is quiet. There is a steadier feeling in opium at \$4.40 per lb. for druggists' in case lots. Hydrastis (golden seal) is easier to the extent of 5c. at \$1.90 per lb. Peppermint oil in tins is also easier by 5c. at \$1.60 per lb. Cascara sagrada is nominal at 7½c. and American refined camphor in barrels has been reduced to 60c. per lb. [This cable was not received in time for our issue of April 18.]

**NEW YORK, April 23:**—Business is dull. Opium is firmer at \$4.45 per lb. for druggists' by single cases. Hydrastis (golden seal) is easier at \$1.90. American refined camphor is lower at 59c. Cascara sagrada is nominal at 6½c. per lb., and peppermint oil in tins is easy at \$1.60 per lb. South and Central American copaiba is firm at 50c.

**BERGEN, April 22:**—The cod-fishing in the Finmarken districts shows uneven results at most places. The total catch of cod for the whole of Norway since the opening of the season amounts to 34,218,000, against 31,578,000 at the corresponding period of last year, and the yield of steam-refined oil is 40,315 barrels, against 30,193 barrels at the same date last year. The quotation for steam-refined cod-liver oil is 53s. per barrel, f.o.b. Bergen.

**ACID, ACETIC,** is steady; 98 per cent. to 99 per cent. offering at 34s., 99 per cent. to 100 per cent. at 35s. in carboys, and 80 per cent. at 24s. per cwt. in casks, which prices would be shaded for contract quantities. The possi-

bilities of a reduction in acetate of lime appear to have been dismissed, and there is no pressure to sell at the moment.

**ACID, CHRYSOPHANIC.**—The makers have reduced their prices by 9d. per lb. to 8s. 3d.

**ACID, CITRIC.**—Since the holidays the market has advanced 1d. to 1½d. per lb., the quotations at the close being from 1s. 3d. to 1s. 3½d. per lb. One of the English makers is reported to be now out of the market until after July. Some fair contracts have been placed within the past fortnight, most buyers being of opinion that prices were about at their lowest. To this and the advancing price of citrate of lime in Sicily may be attributed the firmer feeling.

**ACID, TARTARIC,** is steady at 10¾d. for English and 10¾d. for foreign.

**ALCOHOL.**—The export of German potato-spirit to British markets continues at a standstill owing to the operation of the 5d. surtax which acts as a protective duty.

**ALOES.**—Fifty cases have arrived from Mossel Bay.

**ANISEED** is unchanged at 21s. 6d. to 23s. per cwt. for fair to good Russian.

**ANNATTO-SEED** is somewhat scarce, with good bright offering at 4d. per lb.

**ARSENIC.**—Quotations have again been reduced, and English powdered is now obtainable at 18s. 6d. per cwt. in barrels.

**BELLADONNA.**—There is an absence of good quality root on the Continent, and for further supplies the new crop must be awaited. Belladonna-leaves are advancing in consequence of increased demand.

**BENZOLS** are easier, 90 per cent. offering at 8¼d. to 8½d., and 50 per cent. at 8d. per gal., London.

**BROMIDES.**—Reports which have recently appeared in the German Press do not indicate any fresh feature in the bromide market. We have previously referred to the fact that the struggle between the firms outside the conventions in the German market has terminated, but the sales of individual factories in 1907 were about 50 per cent. less than in the previous year. It is stated that there is but little prospect of an understanding being arrived at between the German and American producers.

**CAMPHOR.**—On the spot sellers of Chinese crude quote 160s. per cwt., being unchanged, and for May-June shipment business was done previous to the holidays at 155s. c.i.f., but there are now buyers.

**CANARY-SEED** is slow of sale, but quotations are unchanged at 32s. to 34s. per quarter for Turkish and Morocco, and at 65s. to 80s. for good to fine Spanish.

**CANNABIS INDICA** is extremely scarce, and about the only holder who has a single case of genuine Bombay tops asks 5s. 6d. per lb.

**CARAWAY-SEED** is steady at 42s. to 43s. per cwt. for ordinary to fair Dutch.

**CASCARA SAGRADA.**—Only a retail business has been done, spot offering at from 36s. 6d. to 38s. per cwt., according to age and quantity, but for a round lot the inside figure could be shaded. Forward shipment does not interest buyers at the moment.

**CINCHONA.**—The auction to be held at Amsterdam on May 7 will consist of 8,741 packages, comprising 7,354 packages Ledgeriana and Hybrid, 950 bales 402 cases Succubra, and 35 packages Sumatra bark. The total weight is about 789,796 kilos. The stock in first-hands at Amsterdam on April 16 consisted of 15,313 packages, comprising 11,585 packages private and 3,728 packages Government bark, these figures including the first-hand lots to be offered at the above auction. The shipments of bark from Java to Europe during the first half of April amounted to 548,000 Amst. lb., against 853,000 for the corresponding period of 1907.

**COCA-LEAVES.**—An auction of 167 packages will be held at Amsterdam on May 7.

**COCOA-BUTTER.**—The auction to be held at Amsterdam on May 5 will consist of 60 tons van Houten's, 5 tons de Jong, 20 tons Suchard, and 5 tons Mignon.

**CODEINE.**—The makers have reduced their prices equiva-

lent to 8*d.* per oz., and now quote pure cryst. and pure precip. at 10*s.* 10*d.*, hydrochlor. and sulphate at 10*s.*, and phosphate at 9*s.* 2*d.* per oz., net cash fourteen days; 70-oz. contracts for delivery over six months are subject to a reduction of 3*d.* In regard to the falling chance, the makers state: "Should we at any time reduce our price, the benefit of decline will be allowed on all deliveries made on account of new contracts while such lower price remains in force. Deliveries on account of existing contracts will have also from this date (April 17) the benefit of any lower price that may be current until the expiration of the delivery period."

**COLOCYNTH.**—The exports from Jaffa during 1907 amounted to 86,490 lbs. (4,990*l.*) against 126,515 lbs. (6,000*l.*) in 1906, 52,500 lbs. in 1905, 57,000 lbs. in 1904, and 71,160 lbs. in 1903; 400 cases, valued at 4,000*l.*, were also shipped from Gaza to Hamburg.

**COPPER SULPHATE.**—Liverpool quotations have eased 10*s.* per ton owing to the fact that the principal export season is now over. April delivery is quoted 22*l.* 10*s.*, May 21*l.*, and June 20*l.* per ton; spot is nominal.

**CORIANDEER-SEED.**—The demand is slow, but holders are firm at 10*s.* 6*d.* to 10*s.* per cwt. for Morocco on the spot.

**CUMIN-SEED.**—A small business is doing at 37*s.* per cwt. for East Indian, 40*s.* for Morocco, and 40*s.* to 42*s.* 6*d.* for Malta.

**DIGITALIS LEAVES** are scarce on the spot at 32*s.* 6*d.* per cwt.

**DRAGON'S-BLOOD.**—Good reboiled lump is scarce and much wanted. Ten cases (quality not yet known) have arrived from Singapore, and some more is on the way. Reed is worth from 8*l.* 10*s.* to 9*l.* per cwt.

**FENUGREEK-SEED** sells slowly at 9*s.* 6*d.* to 10*s.* per cwt. for retail lots of Morocco.

**GAMBIER.**—Small sales of good No. 1 cubes have been made at 30*s.* spot.

**HELLEBORE.**—Quotations for black have been reduced in Trieste, and fair quantities are obtainable at low prices. White, however, is unchanged owing to a very small supply.

**INSECT FLOWERS.**—"Open" flowers have been in fair demand in Trieste, and nothing is now to be had below 49*s.* to 50*s.* per cwt. c.i.f. terms. Half-closed are in good supply and unchanged, while closed flowers are scarce and dear.

**IRECACUANHA.**—The Nile has brought 24 bales from Bahia.

**JALAP.**—Dearer. The spot stocks are now exhausted, with the exception of a few bags in druggists' hands; for shipment 9*d.* per lb. c.i.f. has been paid.

**LEAD ACETATE.**—Small crystals on spot are quoted 26*s.* per cwt. in casks. The low prices of metal recently ruling have induced a fair business in lead products.

**LINSEED** is firm at 46*s.* to 50*s.* per quarter for fine qualities.

**MASTICH.**—Some of the new crop has arrived in London, and prices have an easier tendency.

**MORPHINE.**—The makers' prices are unaltered at 6*s.* 11*d.* for the hydrochlor. cryst. and 6*s.* 9*d.* per oz. net for powder, with the usual reduction for contracts. In regard to the falling clause a circular issued by them on April 16 states: "Should we at any time reduce our price, the benefit of decline will be allowed on all deliveries made on account of new contracts while such lower price remains in force. Deliveries on account of existing contracts will have also from this date the benefit of any lower price that may be current until the expiration of the delivery period." The institution of a falling clause on morphine is a new departure, and is probably owing to the fact that few contracts have been made for many months past, consumers preferring to buy for current business only in the uncertain condition of the market. The reduction clause is distinctly a concession to the *bona-fide* dealer in morphine, while on the other hand the second-hand dealer expresses dissatisfaction.

**OIL, ANISEED.**—Star is quiet, with small sales at 4*s.* 6*d.* to 4*s.* 7*d.* on spot, and for arrival 4*s.* 1*d.* c.i.f. is quoted, being easier.

**OIL, BERGAMOT,** is tending upwards at from 11*s.* to 11*s.* 6*d.* per lb. c.i.f.

**OIL, CITRONELLA.**—Spot sales of Ceylon have been made at from 1*s.* 1½*d.* to 1*s.* 2*d.* per lb. in cases.

**OIL, COD-LIVER.**—Our Bergen correspondent writes on April 13 that the weather during the week continued very favourable for the cod-fishing. Apart from Finmarken, however, there is little fishing going on, the winter season having now practically closed. Up to date the catch at Finmarken is insignificant, but a few places round Cape North have brought good results, and the prospects are considered fair. The market is unaltered and quiet, with a fairly good demand for crude oil, the steam refined being neglected. For finest non-congealing Lofoten quality the quotation is still 53*s.* per barrel f.o.b. Bergen, and the exports from that port up to date amount to 4,325 barrels, against 2,602 barrels at the corresponding period of last year. The statistics showing the catch for the whole of Norway up to April 13 were as follows:

	1908	1907	1906
Catch of cod (millions) ...	32.5	31.6	33.9
Cod-liver oil (barrels) ...	38,900	28,000	27,400
Livers for raw oils (hect.)	10,350	8,760	7,950

Writing again on April 18 our correspondent states that the Lofoten fishing has not yet officially closed, but the final reports may now be expected any moment. At Finmarken the fishing, which has hitherto only progressed slowly, has been interrupted by the holidays and stormy weather. The market is very quiet, and finest Lofoten non-congealing oil is quoted 53*s.* per barrel f.o.b. Bergen.

**OIL, LEMON.**—Quotations from Messina are firmer at from 3*s.* 9*d.* to 4*s.* per lb. c.i.f., but in some quarters doubt is expressed as to the genuineness of this latest advance. Previous to the holidays the market closed firm, but if buyers hold aloof, say, for a week, prices may quickly droop again.

**OIL, ORANGE,** is firmer at from 8*s.* 3*d.* to 8*s.* 6*d.* per lb. c.i.f.

**OIL, PEPPERMINT,** is dull and unchanged at 7*s.* spot for good brands of Wayne County, and at from 1*l.* to 1*l.* 1*d.* for H.G.H. as to quality. Japanese dementholised is quoted 4*s.* 6*d.* spot, and May-June shipment at 4*s.* 3*d.* c.i.f. terms.

**OILS, FIXED.**—*Linseed* has advanced to 21*s.* 4½*d.* in pipes and 21*s.* 7½*d.* in barrels, East Indian being quoted 24*s.* *Rape* is steady at 35*s.* for ordinary brown, and at 36*s.* 9*d.* for British refined in casks. *Cottonseed* is slightly firmer at 23*s.* 3*d.* for crude on the spot; while ordinary pale refined is quoted 24*s.*, and sweet refined 26*s.* per cwt. Cochin *Coconut* oil is steady on the spot at 38*s.* 6*d.*, but Ceylon is a shade easier at from 27*s.* 6*d.* to 28*s.* 6*d.* *Lagos Palm* oil is unaltered at 26*s.* 6*d.* per cwt. *American Turpentine* has declined about 1*s.* to 34*s.* 9*d.* per cwt., and *Petroleum* is quiet and unchanged at from 5½*d.* to 6*d.* for Russian, 6½*d.* to 6¾*d.* for ordinary refined American, and from 7½*d.* to 7¾*d.* per gal. for water-white.

**OPIMUM.**—A Smyrna correspondent writes on April 11 that the weather appears to have become settled, and the critical period may be said to have passed. The poppies have suffered, it is true, but too much importance should not be attached to the alarming reports in circulation, nor to the fantastic estimates which have fixed the yield of the new crop at an excessively low figure. The demands of the holders impede business, and none of the orders which came in during the week at the equivalent of 13*s.* 6*d.* per lb. could be executed. A case of extra Karahüssar realised 13*s.* 11*d.* c.i.f. European ports. The arrivals are 1,374 cases, against 3,210 cases last year. The local press has devoted much space to discussions on the *charancon*, or "worm." Lengthy articles have been published enumerating the injuries which this "worm" might cause. Up till now, at any rate, no great damage has been done. Writing on April 17, another correspondent states that there is no business to report again this week. The interior news is, on the whole, satisfactory, and the "worm" does not seem to be spreading everywhere. Some sellers may be disposed to make concessions, but large interested holders will probably keep out of the market until it is definitely known what the crop will be. The arrivals to date amount to 1,378 cases, against 3,210 at same period last year. The London market continues very dull, and prices are nominally unchanged. Smyrna cables indicate that prices are inclined to be easier,



owing to the prospects of a good crop, added to which the general stagnation in the opium-markets in Turkey is an inducement for sellers to make progress.

**QUILLAIA.**—Spot parcels are offered at 29s., and crushed at 33s. to 34s., as to quality.

**QUININE** is steady, but no business has been done in the speculative market, and the quotation is unaltered at 7½d. per oz. for B. & S. and/or Brunswick sulphate.

**SALTPETRE.**—The market for Bengal is easier to arrive, with sellers at 17s. 10½d. per cwt. British refined in barrels is quiet at 24s. and at 25s. in kegs. German is 23s. 9d. in barrels and 24s. 3d. in kegs.

**SANTONIN.**—Since the reductions took place at the close of last year there has been a gradual restoration of confidence among buyers, and frequent sales are being made on the basis of 9s. per lb. for minimum lots from makers.

**SARSAPARILLA.**—Small sales of grey Jamaica have been made from second-hands at from 2s. 1d. to 2s. 2d. per lb. The fact that there will be no auction until May 7 helps the sales of this article in the interim.

**SCAMMONY-ROOT.**—In Mexican root, testing 15 per cent. of resin, business has been done at 42s. 6d. per cwt., which is dearer. No Levant is offered at the moment.

**SENEGA.**—The inclement weather helps to keep the demand steady, with frequent sales at 2s. 1d. per lb. spot.

**SHELLAC** is quiet, with small spot sales on the basis of 95s. to 97s. 6d. per cwt. for good free T.N. orange, and for shipment A. C. Garnet has been sold at 84s. c.i.f. terms, and G.A.L. at 82s. 6d. c.i.f.; for delivery August has been sold at 96s. to 98s., being easier.

**SODA NITRATE** is easier at 11s. per cwt. for ordinary and 11s. 3d. for refined on the spot. Liverpool is quoted at 10s. 6d. and 10s. 9d. respectively.

**SPICES.**—No auctions have been held this week, and privately the sales have been few and small. In *Pepper* a fair business has been done in Singapore for August-September shipment at 3d. per lb. c.i.f., and on the spot fair is offered at 3½d. with a small business. Of *white pepper*, sales have been made at 5½d. on the spot for Singapore, and the business for arrival includes June-August shipment at 4½d. c.i.f. delivered weight. The market for Zanzibar *Cloves* is dull and business unimportant, with sellers of June-August delivery at 5d. and August-October at 5½d. per lb.; on the spot fair quality is worth 5½d. to 5½d.

**STAVESACRE-SEED** has become very scarce on the Continent, and is, therefore, tending upwards.

**STORAX.**—Liquid is in good supply in Trieste, and fair counter-bids will be considered.

**SULPHUR.**—A Messina advice, dated April 14, states that the market is firm, and a few days ago the Consorzio raised their prices by about 9d. per ton. The demand for crude sulphur for export is quiet, with re-sellers at from 9d. to 1s. 3d. per ton below the Consorzio prices. The demand for ground and refined sulphur has been active, and shipments have been larger than last year; hence prices for these descriptions have advanced 2 per cent. to 3 per cent.

**TAMARINDS.**—New West Indian are arriving freely, imports this week including 388 barrels from Antigua and seventy-five barrels from Barbados.

**TARAXACUM.**—No English is offered in first-hands, but 70s. upwards is quoted by second-hand holders. The foreign root is spring-dug and of little flavour.

**TURMERIC.**—Small sales of Bengal have been made at 19s. 6d. per cwt. Madras and Cochin are quiet.

**WAX, JAPAN,** is steady, with small sales of good at 48s. per cwt. spot.

**WOOD OIL.**—Business was done previous to the holidays in Hankow description at 29s. 6d. c.i.f. June-July steamer.

### Heavy Chemicals.

Since last writing business in the heavy-chemical market has been influenced considerably by the holidays, and has been of a very quiet description. More normal conditions are now likely to rule, and present indications point towards an increasing demand on export account. Home trade contracts are being taken out fairly well, although there is no pressure. Miscellaneous business is of a quiet nature. All things considered, the tone of values is fairly steady, and fluctuations are few and of an unimportant character.

**SULPHATE OF AMMONIA.**—The tone in this market is very firm, and there is a strong demand for both immediate and early delivery. Export demand, particularly for Spain and Japan, is brisk, and producers in many cases are already full sold ahead for some time to come. Business later forward is only of a limited nature, since buyers are unwilling to pay the high prices asked. Present nominal values: Beekton April delivery 12l. 12s. 6d., deferred delivery 12l. 5s., Beckton terms 12l. 6s. 3d. to 12l. 7s. 6d., London 12l. 6s. 3d. to 12l. 7s. 6d., Leith April delivery 12l. 12s. 6d., and Hull 12l. 6s. 3d. to 12l. 7s. 6d.

**BIARIUM-PRODUCTS.**—The steady tone ruling in this branch for some time past is well maintained, and seems likely to continue. The mineral carbonate of barytes, although by no means abundant, is in somewhat better supply, and prices subject to arrangement of delivery are roughly as follows: 80 to 85 per cent. 57s. 6d., 88 to 90 per cent. 67s. 6d., and 92 to 94 per cent. 82s. 6d., all in bulk on rails. Blanc fixe, pure precipitated sulphate of barium in paste-form, 6l. 15s. to 7l. 10s. per ton in usual casks. Pure blanc fixe, dried and in powder-form, 8l. 15s. to 9l. 15s. per ton. Precipitated sulphate of barium (by-product), dried and in powder-form, 6l. to 6l. 10s. per ton. Mineral sulphate of barytes, 50% to 100% per ton, according to quality, quantity, and package. Chloride of barium very steady, ordinary refined crystals 7l. 10s. to 8l. per ton in casks. Pure precipitated carbonate of barium is still in very short supply, nominal figures 7l. 10s. to 9l. per ton. Crude sulphide of barium, 70 to 75 per cent., 5l. 5s. to 5l. 15s. per ton. Hydrate of barium, purest crystals, 13l. 15s. to 14l. 15s. per ton in 6 to 7 cwt. casks. Fused concentrated barium hydrate, 56 to 60 per cent. BaO, solid in 5 to 6 cwt. drums, 13l. 15s. to 15l. per ton, and crushed in special drums, about 3 cwt. each, 30s. per ton extra.

### Continental Drug and Chemical Markets.

**ANTIMONY (CRUDE)** is weak. Quotations for prompt delivery are maintained at 45m. to 45m., according to quantity, while for shipment 40m. is asked.

**BALSAM PERU.**—In spite of the efforts made in certain quarters to maintain or even to advance prices, there have been further reductions. The regular supplies were sufficient to cover the current demand, and gradually some stocks may have accumulated, so that the balsam is obtainable just now at about 15½m. per kilo. in original packages.

**CAMPBOR (REFINED).**—The Hamburg refiners allowed the falling clause to lapse from April 1. Quotations for bell camphor remain unchanged at 500m., but in second-hand 450m. per 100 kilos. is quoted. The general opinion is that the lowest price level has not yet been reached.

**CARBOLIC ACID.**—Sharp competition, combined with a small demand, has reduced prices to a very low level in Germany. The competition between the manufacturers still continues, and as yet it is impossible to foresee how matters may turn out. Quotations are by no means uniform, but 40° to 42° crystals should realise about 92m. to 95m. per 100 kilos., according to quantity.

**CITRIC ACID.**—Prices are somewhat higher, makers asking 245m. per 100 kilos. for lead-free acid, and are not so much inclined to sell.

**COCA-LEAVES.**—Influenced by the changes in the cocaine-market, prices for coca-leaves advanced. The supplies were quickly disposed of, but have lately been renewed to some extent, and offers from the producing-centres at lower quotations have again become apparent.

**OXALIC ACID.**—Business grew slack towards the end of last year, and has not improved since owing to the depression in several branches of industry. Probably the production has also increased, so that there is more than enough to meet the demand. Further reductions have been made from second-hands, and acid is now selling at 65m. per 100 kilos.

**QUILLAIA.**—As far as the Hamburg market is concerned, conditions have been affected by the abundant supplies. Some available lots were sold at 56m. to 55m. ex quay. In Chile, however, the tone of the market is very firm, and higher quotations are announced, so that the last arrivals have been temporarily withdrawn from the Hamburg market. "Cut" bark remains much the same.

**TARTARIC ACID.**—There is a good sustained demand, but business generally is affected by the frequent offers of foreign acid, which though not available for all purposes can nevertheless be used in many ways. In spite of this, and in spite of the low price of citric acid, no reduction in price is anticipated.

**WAX (CAENAUZA).**—A somewhat unexpected decline has become apparent in quotations for all qualities. As, however, Brazil has been making great efforts to send up prices, and as there is not much wax in the market over there, quotations are advancing again. If consumers, who up till now have only been buying minimum quantities, should make larger purchases, it is probable that prices will be higher in



the immediate future. Present quotations are at 217.50m. to 215m. for current grey and fatty grey, 250m. to 280m. for yellow qualities per 100 kilos., ex harbour warehouse.

WAX (JAPAN) is quiet. Shipment wax is quoted at 96m. to 95m., c.i.f., from first-hands, but prompt, being scarce and in good demand, is quoted at 104m.; near at hand is offered at 102m.

## Commercial and Produce Notes.

### Synthetic Camphor.

In the course of the annual report of the Chemische Fabrik (vorm. E. Schering), Berlin, it is stated the manufacture of synthetic camphor is yielding satisfactory results, and although the price of natural camphor has declined considerably, yet by improved methods of production the company hopes to still make the industry profitable. The capital of the company is to be increased from 350,000*l.* to 400,000*l.* for the purpose of being able to deal with the conditions arising from foreign Customs regulations and the operations of the English Patents Act.

### German Alcohol.

At the last meeting of the general committee of the Spirit "Centrale" in Berlin, the following statement was made as to the condition of the industry: "The results of the first six months of the current business year were thoroughly satisfactory. The demand for spirit for drinking-purposes was exceptionally brisk, and in anticipation of changes in the spirit-duties the distillers increased their stocks to an appreciable extent. The consumption of spirit for industrial purposes continued to increase steadily. In view of the large supplies which have been laid in, it is possible that there will be less demand for drinking spirit during the second half-year, but nevertheless the total inland deliveries will probably be in excess of the raw-spirit production for this year, and the surplus will be covered from the stocks. In consequence of these favourable conditions, and unless unforeseen circumstances arise, the distillers may look forward to a substantial addition to the 'abschlagspreise' price of 48m. (last year it was 40m.) and the 'extra-payment' (nachzahlung) 3.25m. per hect."

### Réunion Products.

According to the British Consul, the total production of vanilla in Réunion during 1907 amounted to about 55 metric tons, as against 30 metric tons in the previous year. The average price was 40*l.* per kilo. (32*s.* per  $\frac{1}{2}$  lb.), as against 28*l.* (22*s.* 6*d.*) during 1906. This substantial advance has naturally had a good effect on the small planters, many of whom were on the verge of bankruptcy in 1906. The exports of vanilla from the island in 1907 were 32,523 kilos. The price of geranium oil varied but little last year; 31,247 litres was disposed of at an average price of 19*l.* per litre, and of ylang-ylang oil 200 litres was sold at an average price of 500*l.* (20*l.*) per litre. Many new plantations of ylang-ylang have been started, and it is calculated that in three or four years the production will rise to 400 or 500 litres annually. At present a handsome profit is being made by the planters, but the Consul sounds a warning note of the danger of over-production (as with vanilla) and a consequent fall in price; of vetiver oil (cus-cus) 1,200 litres was sold at an average price of 23*l.* per litre. The exports of geranium oil were 68,739 lb. (avoir.) in 1907, against 69,619 lb. in 1906. British trade is practically non-existent in Réunion, and apart from coal there is probably not 500*l.* worth of British goods imported.

### German Chemical Industry.

In commenting on the present position and the prospects of the chemical trade of Germany, Messrs. Gehe & Co.'s spring report states that the fight for a market will be the burning question in all manufacturing countries. Whether the effects of the treaties enforced on March 1, 1907, will offer a sufficient check to prolong the present prostration of our industry depends greatly upon the realisation of the wishes with regard to the expected improvement in our commercial relations with Great Britain and her Colonies and to the United States, a task which is allotted to our diplomats in the immediate future. Referring to the proposed spirit monopoly, the report states that some branches of trade would be hard hit. It would render it impossible for the chemical industry to compete abroad in spirituous preparations. Nobody, however, mentions a word about indemnifying the manufacturers, as is to be the case with the distillers. It is therefore to be hoped that in the discussions on the proposed Spirit-monopoly Bill this point will be considered, and that the existence of an industry affording employment to thousands of workmen will not be jeopardised. Hand in hand with the increased activity in the chemical industry during the last few years, there has also been an increased profit in the working of such

manufactures. (This statement is certainly fully borne out by the dividends paid.—Ed.)

### Italian Olive-oil Crops.

Respecting the olive-oil crop in Italy, the following notes have been received by the Board of Trade from H.M. Consular officers in the districts named: H.M. Consul-General at Naples (Mr. E. Neville Rolfe, M.V.O.) reports that the yield of oil in Puglia and the province of Lecce is from twenty to thirty thousand metric quintals, or about half the normal yield. The quality is excellent: burning oils will be very scarce. The gathering in Calabria was not, at the time of writing (April 9), concluded, as the olives were slow in falling from the trees. Consequently no calculation could be made, but it was considered that the crop would be below the average in quantity, and that two-thirds of it would be fine oil. The British Vice-Consul at Bordighera (Mr. E. E. Berry) reports that although the crop of olives near the coast in that district has been gathered, the gathering of the crop on the higher land of the interior has not yet been completed (report dated April 3). It is estimated that the total crop will not amount to half the average crop, which is about 1,500,000 metric quintals. Only edible oil is produced in the district. The British Vice-Consul at San Remo (Mr. M. Turton) reports that last season's crop in that district amounted to about 14,100 metric quintals, of which 13,100 were edible oil and 1,000 burning oil. This crop is much below the average, but the quality is good. The British Vice-Consul at Savona (Mr. S. Guattari) reports that 33,000 Imperial gals. of edible oil were produced in 1907 in that district, which does not produce oil for burning purposes. [Metric quintal = 220.4 lb.]

### Zanzibar Chillies in Ceylon.

The Ceylon Agricultural Society has just received a quantity of Zanzibar chillie seeds from the Director of Agriculture, Zanzibar, for distribution among the members. The seeds, says the "Ceylon Times," are almost the same as those of the Ceylon bird's-eye chillies, but the Zanzibar description rules the London market, being in great demand among the manufacturers of sauces and condiments for its pungency and general superiority over the Ceylon article.

### Jamaica Ginger.

The cultivation and preparation of Jamaica ginger is the title of an article by Mr. R. J. Miller, of Jamaica, appearing in the "West Indian Bulletin" (Vol. VIII., No. 3). Mr. Miller gives a few facts concerning its introduction into Jamaica about 1835. Five years later Jamaica ginger realised as high as 180*s.* per cwt. on the London market, this high price resulted in a great increase in cultivation, and consequently a large amount of inferior ginger found its way on to the market, a fall in prices being the natural result. The present outlook is not regarded as particularly hopeful, for unless the cultivation of the best quality will yield 40*s.* per 100 lb. to the grower, the crop, in Mr. Miller's opinion, will become shorter year by year. Another factor to be considered is that bananas grow freely on the ginger soil, and when it is considered how much less labour a crop of bananas takes than ginger, it will readily be imagined how one is preferred to the other. The small crop of 1905-6 seems to be a forecast of what is undoubtedly coming, for as the cost of cultivating and curing ginger is great and laborious, many, finding that the prices obtained do not sufficiently warrant their continuing the cultivation, have turned their attention to other and more promising sources of income. Mr. Miller concludes his article with the method of preparation of ginger for market, which has been described on previous occasions in this journal.

### The Sunflower in India.

Mr. David Hooper, F.C.S., F.L.S., in the "Agricultural Ledger" (1907, No. 1) reviews the experiments in the growth of sunflowers in India, and gives the commercial importance and uses of the products of this plant in other lands, particularly Europe and the United States. If his remarks do not stimulate the industry, they will at any rate serve as a guide to those who contemplate undertaking further experiments in the cultivation. The sunflower industry first began to assume importance in Russia in 1830, and since that time has steadily increased; it is also cultivated in Italy, Hungary, Germany, France, the U.S.A., and China. In Europe the production of the seed a few years ago was estimated at 2,350,000 cwt. from an area of 216,000 acres, or 1,325 lb. to the acre. After describing the method of cultivation in the United States, Russia, and France, Mr. Hooper gives an account of the uses of the seeds and the oil. In regard to the latter, it is stated that it is used in Russia as an adulterant of and substitute for olive and salad oil for domestic purposes. Commercially, its results have been disappointing, as the seed cannot compete as a source of oil with the Indian oil seeds. Several years ago one eminent firm purchased 100 tons of seed in the London market, but they would not touch it again, the results as regards yield for crushing being very unsatisfactory.



## The Trade of India.

THE following figures are taken from "Tables Relating to the Trade of British India with British Possessions and Foreign Countries, 1902-3 to 1906-7," published by Messrs. Wyman & Sons, Ltd.

	Imports		Exports and Re-exports	
	1905-6	1906-7	1905-6	1906-7
Betel nuts .....	105,186.189	119,732.410	373,178	289,770
Cardamoms .....	435,407	224,469	310,661	202,374
Chillies .....	—	—	9,002,705	11,007,929
Gloves .....	8,345,521	5,062,782	992,001	286,925
Ginger .....	1,089,515	1,026,344	9,869,174	5,415,531
Nutmegs .....	671,445	715,018	—	—
Pepper .....	994,432	1,061,826	17,869,994	9,499,089
Other spices .....	311,901	273,541	300,440	99,100
Quicksilver .....	256,562	265,269	5,477	4,156
Alum .....	70,803	72,344	2,073	2,463
Arsenic .....	2,490	1,925	—	—
Bleaching materials .....	38,778	60,901	—	—
Calcium carbide .....	8,572	8,370	—	—
Copperas .....	25,193	20,680	—	—
Potass. cyanide .....	4,587	5,093	—	—
Disinfectants .....	14,515	15,833	—	—
Sal ammoniac .....	5,352	5,770	1,099	1,070
Soda bicarb. ....	68,417	75,472	—	—
" caustic .....	69,613	84,020	—	—
Other soda empsids. ....	20,000	27,210	—	—
Sulphur .....	69,945	67,443	—	—
Sulphuric acid .....	56,602	64,401	—	—
Other chemicals .....	227,152	199,848	8,930	14,335
Aloes .....	463	501	360	370
Asafetida .....	4,530	6,062	3,279	1,250
Camphor .....	705,736	849,251	121,023	44,776
Cassia lignea .....	27,716	23,421	4,774	3,289
Cocaine .....	2,842	1,771	—	—
Galangal .....	3,968	3,918	—	—
Patent medicines .....	90,377	116,003	—	—
Quinine .....	68,953	71,237	—	—
Other drugs, etc. ....	156,625	143,585	107,586	88,137
Opium .....	2	2	89,247	94,449
Dyes, etc. ....	—	—	—	—
Alizarine dyes .....	6,297,577	5,732,896	64,403	96,205
Aniline .....	5,306,207	6,003,849	4,690	6,234
Cochineal .....	1,890	1,533	—	—
Gambier .....	29,111	28,436	—	—
Indigo .....	1,244	2,392	31,186	35,102
Saffron .....	369	390	52	56
Turmeric .....	—	—	49,545	62,246
Other sorts .....	15,550	11,545	30,145	—
Oils, essential .....	10,161	10,479	26,663	27,342
" castor .....	—	—	1,432,108	1,445,636
" coconut .....	543,347	999,556	1,508,424	959,772
" linseed .....	263,600	304,466	166,682	114,205
Gums and resins—	—	—	—	—
" Arabic .....	11,305	10,127	36,631	37,886
" Benzoin .....	16,090	16,136	1,394	1,580
" Olibanum .....	40,933	32,582	34,952	34,760
" Resin .....	64,602	96,468	61,296	49,912
" Other sorts .....	20,842	13,101	—	—
Beeswax .....	272	—	8,593	8,162
Perfumery .....	19,264	17,420	13,875	11,063
Soap .....	188,641	183,998	2,593	—
Fora .....	—	—	5,366	5,613
Saltpetre .....	4,843	28	336,429	353,378
Cinchona .....	—	—	916,360	494,857
Other crude drugs .....	—	—	91,524	69,240
Lac, button .....	—	—	41,851	37,117
" seed .....	—	—	2,837	1,677
" shell .....	—	—	217,593	205,473
" stick .....	10,199	4,034	8,167	13,491
Ajowan seed .....	—	—	4,114	8,983
Zorander .....	—	—	91,103	72,670
Dummin .....	—	—	20,096	23,605
Fennel .....	—	—	8,509	10,974
Fenugreek .....	—	—	33,397	61,635
Viger seed .....	—	—	44,670	95,411
Dill seed .....	—	—	14,116	12,012
Other ess. oil seeds .....	9,415	11,826	5,925	5,933
Castor seed .....	—	—	1,296,624	1,506,069
Sandalwood .....	—	—	74,318	75,392
Storax .....	96,863	67,221	—	—
Spirit, medicinal gals. ....	85,356	86,891	—	—
" perfumed .....	24,080	16,351	—	—
" methylated .....	130,055	181,369	—	—
Paints and colours .....	249,592	281,368	14,963	15,096
Painters' materials .....	73,765	96,942	—	—
Optical goods .....	23,211	31,505	—	—
Photo apparatus .....	54,472	53,102	—	—
Surgical apparatus .....	47,179	52,951	—	—
Saccharin .....	—	17,133	—	—

\* From April 1906.



**TO CORRESPONDENTS.**—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. Publication of letters does not imply our agreement with the arguments or approval of the statements therein. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects presumably of interest to our readers generally. Letters received after the early posts on Wednesday cannot as a rule be dealt with in the current week's issue.

**BUSINESS INFORMATION.**—We have very full records of the makers or agents for articles and products connected with the chemical and drug trades, and supply information respecting them by post to inquirers. Inquiries regarding any articles which cannot be traced in this manner are inserted under "Information Wanted."

### Pharmacy Legislation.

SIR,—A few thoughts and perplexities *re* the above placed before your readers will perhaps give them food for reflection.

With reference to the agitation in the country produced by the advent of the Licensing Bill, I would like to know whether (in the event of the Poisons and Pharmacy Bill becoming law) the Government will incorporate in the Bill a scheme of compensation for the chemists of the country who will be deprived of a considerable amount of profit, and whether the licensees under the new Act will be expected to contribute to such a fund, since they will be replacing a large number of chemists, or at any rate injuring a large number. What is sauce for the goose is sauce for the gander, and where undue competition is introduced in a district, should not the first-comers be compensated?

We hear nothing of compensation in our trade: in "The Trade" we hear nothing much else. Who will compensate me, for instance, for the 500*l.* per year turnover lost since company competition came into my town? Who will compensate the poor leather-goods man here in London who, not twelve months after a company departmental stores came into his district, had to put up his shutters—ruined; and of the hundreds of chemists in the country (who, indeed, keep their shops open because to close them means out of the frying-pan into the fire) who do not put 5*l.* into their pockets at the end of the year as saved money after paying business and household expenses—who speaks of compensation to them for their worry, anxiety, and the costly training and examinations? As to this precious Poisons and Pharmacy Bill, let us suppose that an ironmonger in a small village is licensed to sell poisonous compounds by this Bill, and that in course of time this small village becomes a large village or town, making a "good" opening for a *bona-fide* chemist; if such a chemist ventures there, will the ironmonger continue to sell his poisonous compounds, and, of course, any other drugs, chemicals, and sundries, and prescribe and dispense, and do any other work that the chemist ought to do? Then what is the use of the chemist going there at all? Here arises a difficulty which we know stinks in the nostrils of the law—viz., restriction of trade. The result will be that as you restrict the areas of useful labour, so the need of the chemist will be restricted, and in time probably obliterated, since the Bill is formed wedge-shaped, and will produce, like the wedge, disruption and destruction of the whole trade. Felt first in agricultural districts, the damage to pharmacy *per se* will spread over the whole country, and, like the apothecary of old, the chemist of to-day will become in course of time a *rara avis*, if not positively an *extincta avis*!

Yours faithfully,  
NOMEN. (175/50.)

Pulv. Glycyrrh. Co.

SIR,—The apostolic injunction "prove all things" is never more applicable than in the practice of pharmacy, and the analytical minds who devote attention to the subject are rendering important service, not only in their day and generation, but to such as will some day step into their

places and carry on the perennial craft of the apothecary. Dr. Balmanno Squire has directed attention to the composition of compound liquorice-powder which is really a misnomer, for liquorice is not the leading ingredient. Many years since a prescription from Berlin went the round of the chemists' shops in the town in which I resided, but the only reply was *non inventus*. Happening to have a copy of the *Pharmacopœia Universalis*, I was enabled to meet the requirement. That it is not an elegant preparation goes without saying, and Dr. Balmanno Squire's suggestion is worthy of attention. If I were still in business I should prepare a quantity by the improved formula, believing that it would supersede that "made in Germany" and accepted by our pharmacologists. Nevertheless, I must beg pardon on behalf of oatmeal as an article of diet, for I have taken the "halesome parritch" daily for the past forty years, and have been overhauled by a well-known physiologist, who found neither sugar nor albumen—in fact, no tendency to disease—in my *corpus vili*, although it has done duty for nearly eighty-nine years. Regarding the reciprocal action of flavours there is much to be learnt—*e.g.*, otto of rose is much enhanced by admixture with ol. santal. flav., Tonquin bean helps lavender, as also does musk, while ol. limonis destroys it; and syrup of tolu with peppermint is absolutely nauseous. It would be worth while to compile a table of compatible and incompatible perfumes, which would often prove available for the ordinary chemist or any person engaged in the elegant art of perfumery.

Faithfully yours,

R. GOODWIN MUMBRAY.

#### Elixir Neriot.

(See *C. & D.*, April 4, p. 509.)

In a quarter of the city that is famed

For many things that need not be related,

A company that shall not here be named

For reasons which are going to be stated,

Have put upon the market with a dump—

There is little doubt about it, they were "dumping,"

For it fell upon the chemist with a thump.

Though it may have been the profit that was "thumping"—

A compound with the formulæ  $H_2O$ —

A very simple preparation, very—

That bears the name "Elixir Neriot,"

But is also known as "eau," without the "Neri."

The preparation had a rapid sale,

All the chemists of the city sent to get it;

None could say "Elixir Neriot" was stale.

And although the price was much to be regretted,

It wasn't even the price that was so trying,

It was waiting for the customer to fetch it;

The trouble really wasn't in the buying.

It was only in the sale, and that was wretched.

"Se trouve dans toutes les meilleures pharmacies,

Mais exiger la notre signature"

De la vraie inimitable Compagnie—

No longer to be found, it would appear.

Davos Platz.

T. HANNAY.

#### Lemon Curd.

SIR,—Just a note in reply to your correspondent Mr. Bousfield with regard to lemon-curd cheesecakes—which, he says, should not be eaten, as the second baking spoils the lemon curd. It is not necessary to put the curd in before baking—a good housewife would bake the pastry first and fill in the shells with the curd afterwards, so avoiding the disadvantage mentioned by Mr. Bousfield.

Yours truly,

Leeds.

B. L. BURRELL.

SIR,—Picture me, a lonely English chemist, amid snow-bound Alpine fastnesses, with no Englishman within miles, with no place to get a decent English meal, and under the necessity, therefore, of cooking my meals myself; in a place which winter visitors have deserted, and whither summer visitors have not yet penetrated—taking Easter duty in a waste land where no customers come and where all is vanity and vexation of spirit. To me, thus, comes the *C. & D.*, my link with a civilised world, and—Joy! the Easter Number contains, among the correspondence, a recipe for lemon curd. What better occupation for Easter Monday than to compound the precious prescription? So said—so

done. Dinner over, dispensing-counter cleared, the magic mixture is commenced. Butter, sugar, lemon, eggs—in due proportion and in order due, and lo! half-an-hour's strenuous labour and anxious watching produced two galli pots full of a yellow, opaque cream, shining like gold and tasting like nectar! Thanks be unto thee, O Brother Bousfield! who kept not this wondrous discovery to thyself but published it abroad for the benefit of thy fellow-men. Would that thou couldst have joined me at my afternoon tea, when I tasted the fruits of my labours!—then would thy heart have been glad and thy soul rejoiced within thee for thy lemon curd maketh the wilderness to blossom as the rose, and bringeth joy unspeakable to the lonely habitations of men.

Yours truly,

April 20.

EXCELSIOR. (176/74.)

#### Apprenticeship Problem.

SIR,—Let me ask "A Relic of the Past" what return may be promise an apprentice to-day, who would go through a similar experience, beyond a berth in an octopus store and an intimation that he is "too old for forty."

Yours faithfully,

April 17.

SIXTY-FOUR. (175/34.)

#### What is a Tun-dish?

SIR,—I was recently asked for "tun-dishes," and as had never heard the name before was very much puzzled to know what was meant until it occurred to me to consult Nuttall's dictionary, where I found "tun-dish, a funnel. The next entry in the dictionary is "tun-bellied, having a large protuberant belly," and that "tun," among other things, means "a large quantity;" perhaps "tun-dish" may be a familiar word to many of your readers, but to me it was quite a new word.

Yours faithfully,

WM. BOUSFIELD.

#### Popular Uses of Potassium Permanganate.

SIR,—*Apròpos* of the note in the *C. & D.* of April (p. 539) on potassium-permanganate poisoning, the following may be of interest. Some time ago I had a call for twopenny worth of "crystals." The customer did not know what kind "They were just crystals she asked for before, and she would know them if she saw them." Tartaric acid and boric acid did not meet the want, and when the customer mentioned that the required crystals were "like wee needles," potassium permanganate was shown, recognised as the right article, and supplied. "Hoo much o' this is dose for a man?" queried the lady. "For a man?" I repeated. "What's the matter with him?" "Oh! it's ta pit him aff the beer," she explained. Two grains of potassium permanganate was weighed and shown as a dose. The lady looked at it dubiously. "That a dose! I gie him tuppenceworth last time." "And what was the result. Wasn't he ill after so much?" I asked anxiously. "Na! she said, emphatically. "It jist made him spew like ony thing; but he was able to gae oot tae his wark nex mornin'."

Yours truly,

GILTSBUR. (166/4.)

#### Is the Retail Trade Done?

SIR,—These are a few observations from personal experience as a negative reply to that question. Having passed the Minor examination I took a berth for a little while with a large firm of cash chemists and saved something, but not much. I saw in a provincial town what I thought to be a good opportunity of starting business for myself. My first lack was capital. I had only 8l. or 10l. in the bank, and little could be done with this. I therefore borrowed 100l. at 6 per cent., to be repaid at the rate of 10 per week in quarterly payments. I then interviewed the landlord of an empty shop, and took the premises for one year with the option of a lease at the end of that time.

I next interviewed the representative of a good wholesale house doing in most lines in the drug-trade, and frankly told them my position and history. The house willingly gave me credit and sent me 80l. worth of goods without cheque or mention of money. The matter of fittings engaged my attention. This proved a stiff item. I saw an advertisement in *THE CHEMIST AND DRUGGIST* concerning 35l. fitted shop. This I found to be wonderful value, and all I needed in addition to what the 35l. included was window fittings, scales, and weights. I bought a splendid window fitting for 2l. 10s. in a neighbouring town from a man who



had gone down and left the fitting in the shop. I also wrote to a London sundry-house and ordered 20% worth of carefully-selected sundries. This firm was the most ungracious of any I dealt with, sending *pro forma* invoice and demanding cheque, although references had been given as desired. I also ordered a nice assortment of stock labels, and from the first made a point of pushing my own goods.

Having bought stock and fixtures and being on the way for opening, I billed the neighbourhood well, showing patents at less than store prices, also a few common lines in drugs at cut rates. This proved to a good thing, and my first week's business proved a success. I took sufficient to pay myself a wage and all expenses—rent, rates, light, etc. I went on for a year gradually increasing and took 900% the first year, still pushing my own goods and showing and pushing only good paying lines. I then took stock and found I had 350% of stock and fixtures, allowing for depreciation, and owed 75% to my loan creditor, and 84% to sundry creditors, including portion of rent and rates. This showed that I had made in one year 195%, besides living expenses, which averaged 1% 5s. per week the first year, and a married man at that. My wife worked along with me, helping in various business ways. I washed my own windows and did my own dusting for most of the first year. My net profit then on a turnover of 900% was 260%—not a bad start for one year's work. Every year since I have done an increased business, and last year's returns were 2,400%. I may say, however, that after the first 20% of weekly turnover profits are lower on account of increased expenses. When another man's wages has to be paid out of a business, with the inevitable errand-boy's and increased room required for stock, the net profit on the larger turnover is relatively less than on the smaller one.

I have no hesitation in recommending smart, capable men with initiative to start on their own even in the face of keen store competition. The advice given by a recent writer in the *C. & D.* to keep expenses low is good, but the other man's advice to keep stock too low is of doubtful value. Jay Mack's ideas of stock are rather one-sided, and are probably taken from the view of a company's branch, where he had the whole stock of a large warehouse at a post's throw. True, the retailer has the wholesaler, but, if he orders in too small quantities, common-sense says he must pay the piper. My own experience is that things can be well bought, certainly not in 7s. 6d. chest preservers. But surely Jay Mack cannot mean that to buy 6 cwt. of glycerin at once instead of a Winchester weekly is not good business, when it enables one to cut out store competition and leave a good profit?

Things cannot be sold if not in stock. I have been surprised with the things I have sold when able to show a choice assortment, especially of sundries and side-lines. I am aware also that some chemists consider it to be below their dignity to be a salesman, but this art needs as much cultivating as passing the Minor, and without it no man can hope to make good progress. I also disagree with Jay Mack's impersonal idea of a chemist's business. This is impossible if the proprietor serves the majority of his customers; in this case there is bound to be a personal element. Courage, industry, self-denial, and, above all, initiative are the *sine qua non* of success in these days of fierce competition.

Yours truly,

TOM WILLING.

#### Opening Ammonia Bottles.

A Transvaal correspondent (123/33) writes to advise all chemists in tropical and subtropical parts to avoid such troubles as he experienced in opening a bottle of liq. ammon. fort. by using a towel or something to cover the stopper or bottle. He was opening a Winchester quart, and eased the stopper for at least three minutes to allow gaseous  $\text{NH}_3$  to escape. After he thought all the excess of gas had escaped he placed the stopper on the floor beside the bottle for five minutes, then went to put the bottle away; but as soon as he moved it about 40 oz. spurted out of the bottle, and what did not strike his face and saturate his shirt found resistance on the ceiling of the shop. How he got to the window of the back shop is a tale that need not be told. The temperature in the shade was 90° F.

\* Owing to exceptional pressure on our space this week other letters and replies are held over.

## Dispensing] Notes.

### A Question of Colour.

SIR,—The following prescription should, according to the prescriber, be dispensed a clear green colour. Only one firm in London has so far succeeded. One, of the very highest reputation, has failed. What think you?

Strychnin. sulph.	...	...	gr. j.
Quinina sulph.	...	...	gr. xxx.
Ferri pyrophosph.	...	...	5ij.
Spt. chlorof.	...	...	3iij.
Glycerinum ad	...	...	3iv.

M. Ft. mist.

Yours faithfully,  
GENTIAN. (171/38.)

[The prescriber is quite right. The prescription presents no difficulty. We get a beautiful clear light-green solution, which has kept so for several days, by the following procedure: Dissolve the pyrophosphate of iron in about twice its weight of water by aid of heat, add the glycerin, then the quinine sulphate in fine powder, and the strychnine sulphate; heat till the quinine sulphate is dissolved and most of the water dissipated; bottle, and add the spirit of chloroform. Glycerin will dissolve more quinine sulphate than is here ordered. Soluble pyrophosphate of iron must be used.]

### Two Problems.

SIR,—(1) What is the precipitate in the following prescription?

Liq bismuthi	...	...	3j.
Sodii bicarb.	...	...	3ij.
Tr. chlorof. co.	...	...	3ij.
Aquam ad	...	...	3viij.

I have heard several opinions expressed, some asserting that it is chloroform, others inert matter from cardamoms. The precipitate is slowly soluble.

(2) What reactions occur when potassium chlorate and boric acid are mixed together?

Yours faithfully,

S. J. ROBINSON.

[(1) The precipitate is chloroform with some colouring-matter from the compound tincture of cardamoms contained in the tincture of chloroform. This can be demonstrated by mixing all but the chloroform and adding it last. Without the chloroform there is no immediate precipitation. After twelve hours there is a scarcely perceptible precipitate of colouring-matter, which the chloroform makes more apparent if it does not increase it. Our opinion is that after the addition of the chloroform some of the colouring-matter is, so to speak, "salted out." It is more soluble in water and alcohol than in chloroform—for example, if water be added to compound tincture of chloroform, the chloroform, when it separates, contains no colour—but in this case the solvent capacity of the water is pretty fully taken up by the salts of bismuth and soda and the chloroform. With tap-water the precipitate is more abundant than with distilled water. (2) The querist does not state whether dry or in presence of water. We have tried both ways, and have not obtained any evidence of reaction. Has there been any reason to suspect chemical change? We should not expect any.]

## Legal Queries.

For concise statements respecting various Acts which affect directly or indirectly the Chemical and Drug Trades, see the "C. & D. Diary," 1908, p. 456; Stamped Medicine Law p. 435; Pharmacy and Poisons Law, p. 448; and Patents Law, p. 442.

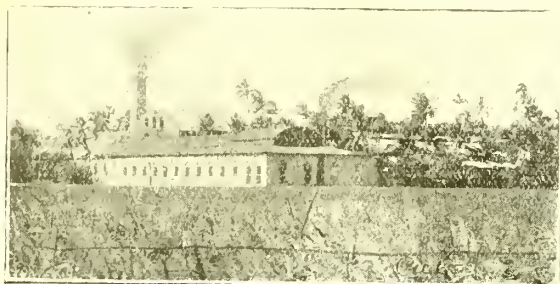
*Bonum* (256/11).—Particulars of the Spectacle-makers' Company's examination are given each year in the *C. & D.* Educational Number. The prospectus (of which a revised issue has just appeared) can be obtained from the Clerk of the Company, Colonel T. Davies Sewell, 11 Temple House, London, E.C.

*E. E. E.* (171/44).—If the eaves and fascia project over the land actually leased to you and in your occupation, you have the right to commence an action against the adjoining owners for trespass, and if you get a verdict against them the adjoining owners would probably be entitled to be indemnified by their landlord, who has apparently agreed to let them more land than he has got. If the piece of land leased to you was incorrectly described as having a frontage of 30 ft., whereas it only has a frontage of 28 ft. 6 in., we do not think you are entitled to insist upon having 30 ft. You should have found out the error in the measurement at the time the lease was granted.



## Chemicals in Bengal.

WE recently received from Professor Prafulla Chandra Rây, D.Sc., F.C.S., of the Presidency College, Calcutta, some photographs of the new Bengal Chemical and Pharmaceutical Works in that city, which we reproduce here:



EXTERIOR VIEW OF THE WORKS.



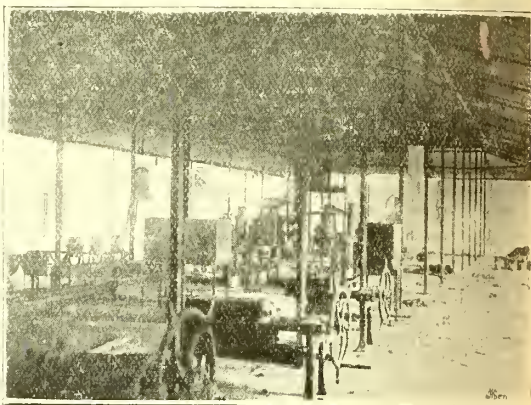
THE WORKSHOP.



THE CHEMICAL LABORATORY.

When the fourth photograph was taken the pharmaceutical laboratory was in the process of fitting; but sufficient was in place to indicate that chemical as well as galenical operations are conducted here. The chemical laboratory is for

analytical and research work. Professor Rây and his coadjutors in this enterprise started it as a scheme for employ-



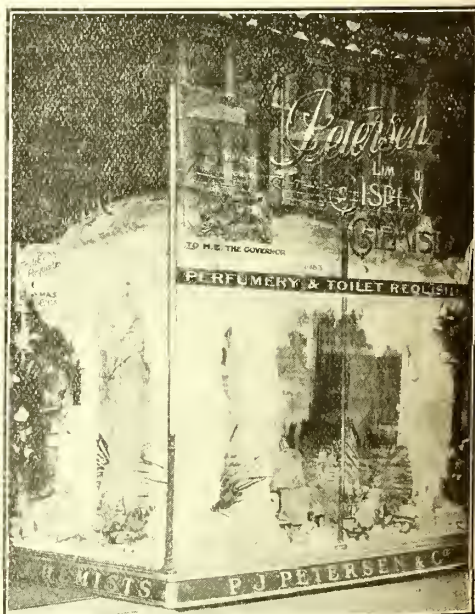
INTERIOR OF PHARMACEUTICAL LABORATORY.

ing Bengalees who have been educated and trained at the Presidency College. It is a patriotic rather than a profit-making venture.

## Chemists' Windows.

Contributed by "C. & D." Subscribers. The Editor will be glad to receive photographs of effective window-displays for inclusion in this section. Notes on the displays should accompany the photographs. We pay for what we use.

We illustrate this week a Cape Town window-display that caused considerable curiosity during the gala season (see *C. & D.*, January 18, p. 77). The ice and snow effects were



obtained with lump alum, mirrors, and cotton-wool, but perfumery and toilet goods formed the main selling features in the exhibit. When lit up, the window drew large crowds. The photograph is a side view of the window.

**PLATINUM IN THE URAL.**—The St. Petersburg correspondent of the "Financial News" states that an American syndicate intends to acquire some platinum alluvial deposits in the Ural district. Two Russian mining engineers left a few days ago for New York to take part in negotiations concerning the sale of a platinum foundry.



# THE CHEMIST & DRUGGIST SUPPLEMENT.

OFFICE: 42 CANNON STREET, E.C.

SATURDAY, APRIL 25, 1908.

## PUBLISHER'S NOTICE TO ADVERTISERS.

Advertisers are desired to take note that the advertisements of Businesses for Disposal and Wanted, Situations Open and Required, Exchange Column, &c., belong to the **PREPAID CLASS**, and to ensure the due insertion of the announcements the remittances must accompany the instructions. A great amount of unnecessary correspondence is occasioned by the non-observance of this regulation, and the Publisher hopes that the advertisers will assist in the quick preparation and despatch of the Supplement by strictly observing this rule.

A Copy of this Supplement is inserted in every Number issued of "The Chemist and Druggist."

## The History of The C. & D. Supplement is a record of ever- increasing popularity.

IT PAYS TO PAY TO ADVERTISE IN IT.

## CHEMISTS' TRANSFERS.

Messrs. ORRIDGE & CO., 56 Ludgate Hill, E.C.

May be consulted at their Offices on matters of SALE, PURCHASE, and VALUATION.

1. KING'S CROSS (within distance of).—Good middle-class Business; chiefly ready money; returns present rate £1,600 per annum, and yielding a net profit of 20 per cent.; modern, well-fitted shop, sited in good business centre; terms, lease and goodwill £100, stock and fixtures at a fair valuation.

2. MIDDLESEX (Residential Suburb).—Modern Pharmacy; main thoroughfare; returns £1,000 yearly; net profit £300; full investigation invited; price £800.

3. LONDON (West End).—Dispensing and Retail Business; established many years; returns last year £1,212; gross profit £580; well-applied shop, corner position; commodious residence, private entrance; price £900, or valuation terms can be arranged.

4. LONDON, W.—Old-established Business; all first-class Dispensing and Retail; returns about £950; excellent opening for extended trade; the vendor is desirous of retiring at an early date, and is disposed to meet a young man on very advantageous terms.

5. LONDON, S.W.—Well-established Business; held by vendor many years; returns £1,265; average net profit about £400; intending investors with about £950 at command will find this a good investment.

6. SURREY.—General Retail, Dispensing, Prescribing, and Photographic; returns £867; scope for large increase; price about £350, illness cause of sale.

7. ESSEX.—Ready-money Business; Retail and Prescribing; returns last year about £1,000; in the hands of an energetic man

there is scope for extended trade; terms, simply the value of stock and fixtures.

8. SHROPSHIRE (Market Town).—Old-established Business; well situated in the Market Place; returns average about £1,150; net profit £304; terms, lease and goodwill £250, stock and fixtures at valuation.

9. HOME COUNTY (Health Resort).—Middle-class Business; no immediate opposition; returns last year £700; net profit £200; rent £32 yearly; price £475.

10. TYNESIDE.—Middle-class Business; General Retail and Dispensing; returns £600; net profit £120; lock-up shop; rent £52; terms, goodwill £30, stock and fixtures at valuation.

11. SUSSEX (Health Resort).—Retail and Dispensing Business; established 1875 and held by the late vendor 11 years; returns exceed £650; gross profit 50 per cent.; modern, well-fitted shop; main thoroughfare; valuation of stock and fixtures only required.

12. WESTERN COUNTY.—General Retail and Family trade; returns about £13 weekly; profits above the average; good-sized shop; corner position; early sale desired; offer wanted.

13. KENT (Inland Health Resort).—Retail, Dispensing, and Photographic trade; returns between £550 and £600, at fair prices; comfortable residence; rent £55; price £450.

14. DOVER (near).—Good-class cash Business; returns average £750, increasing; net profit £190; attractive shop; main thoroughfare; rent £65; price £650.

Particulars of any of the above will be furnished on application.

N.B.—NO CHARGE TO PURCHASERS.

## VALUATIONS FOR STOCKTAKING.

Messrs. O. & Co. desire to emphasize the necessity of a Periodical Statement of Account, by which means alone Profit, the value of Business, &c., can be determined. Involving as this does the labour of Stocktaking and Valuation, it is often omitted, and eventually becomes the cause of confusion and loss.

Messrs. O. & Co. are prepared to undertake these essential duties and will make Special Terms for such services.

ORRIDGE & CO. 56 LUDGATE HILL, LONDON, E.C



# BRETT & CO.

VALUERS,

8 WEST ST., LEICESTER.

Telegrams, "Brett Leicester." Telephone 160 Y.

VALUATIONS have always had our special and personal attention, and an experience of thirty years is at your disposal.

AGENCY.—We have always a large number of *Buyers* on our books, and we can frequently find a *Purchaser* at once. We also have a *Private Register* for vendors who are in no hurry to sell, and who do not wish their businesses to be advertised.

## STOCKTAKING SPECIALISTS to the Entire DRUG TRADE.

YORKS.—Light Retail, Optics, and Photographic; large shop and convenient house; old-established; returns £1,500; net profit £400; valuation, about £1,200; worth prompt attention.

LINCS.—Light General Retail and Photo goods, in main street of busy town, returning under manager £1,400; price, at valuation, about £800; only wants seeing.

SOUTH-WEST.—Light Retail and Dispensing, Prescribing, and own preparations; fine corner shop, well fitted; large house; returns over £700; stock and fixtures about £550.

KENT.—Mixed Retail, Prescribing, and Photo, on the coast; returns £700; good season trade; old-established; long lease; worth prompt attention; price £475.

ESSEX.—High-class Retail, Dispensing, and Photographic; returns £1,000; nice spacious shop and large house; the best position in the town; valuable lease; price only £550.

LANCS.—Good middle-class Retail with Photographic and Wines; returns nearly £2,000; net profit £400; old-established; very low rent; stock and fixtures at valuation, about £1,200.

LANCS.—Light Retail, Photographic, and Optics; no Patents stocked; returns £800; net profit £250; rent £40; stock and fixtures at valuation (£600); can be reduced.

LINCS.—Good General, Mixed, Family, Retail, Dispensing, and Agricultural; excellent shop and house; returns nearly £25 per week; very profitable; stock and fixtures at valuation, about £1,000; only wants seeing.

STAFFS.—Good General Mixed, Family, Retail; good shop and convenient house; returns £800 under manager; price only £225; a bargain.

# PARSON C. BAKER

174 VICTORIA ST., LONDON, S.W.

Telephone: No. 27 Victoria. Recommended by—MESSRS. BARRON, HARVEYS & CO. MESSRS. MEGGESON & CO. MESSRS. BARCLAY & SON, LTD.

DEATH VACANCY.—Under exceptional circumstances, a very first-class and old-established Dispensing Business in South West, returning about £2,000 per annum, is now for disposal on the most liberal terms; no goodwill; beneficial lease for long term; valuation only, and part cash can remain on approved security; unlimited scope for developing a very large business on modern lines; large and handsome shop, in very best position large and prosperous neighbourhood, extending rapidly; returns over £1,300; continuously increasing; well-fitted shop, fully stocked; good reason for disposal; all goodwill and valuation; strongly recommended.

IN NORTHERN SUBURB, a well-established modern Pharmacy and good house, with small garden; rent £80; pleasant neighbourhood, extending rapidly; returns over £1,300; continuously increasing; well-fitted shop, fully stocked; good reason for disposal; all goodwill and valuation; strongly recommended.

CENTRAL position good town Kent; old-established Family Retail; neglected from ill-health; returning £600; will do £1, in good hands at once; large shop; excellent house; large and well-kept garden; good warehouse, yard, etc.; lease or purchase as desired; no goodwill; valuation only; very desirable investment.

## SALES BY AUCTION

Have you a Shop Stock or Fixtures to offer by Auction? Then place the matter with us. The **Only Firm** of specialised **Chemists' Auctioneers** in the trade. We do no other business.

The ordinary Auctioneer as a rule cannot realise more than 20 or 25% at the most of the actual value of a chemist's stock, simply because he doesn't know what he is offering. We have known a Wine of Bals. Copaiba sold for 2d., and other instances of a similar nature through being offered by inexperienced Auctioneers.

Our fees are no higher than the other man's, and we put you 50% more money in your pocket. Write us immediately.

**JACKSON & COMPANY, Chemists' Auctioneers,**

16 Stratford Avenue, ROCHDALE.

# MESSRS. BERDOE & FISH

Chemists' Valuers and Transfer Agents,

35 JEWRY STREET, FENCHURCH STREET, CITY.

TELEPHONE: 1809 CENTRAL

Have the following Businesses for Disposal. (No charge to Purchasers.)

1.—SOUTH-WEST COAST.—Good-class Family Retail and Dispensing Business; returns nearly £1,800; net profit 25 per cent.; splendid premises; very best position; price £1,500, or offer; valuation terms if preferred; personally inspected.

2.—MIDLANDS.—Light Mixed Retail Business, in unique position, busy manufacturing centre; returns about £1,500; low rent, on lease; no near opposition; price £800, simply valuation.

3.—KENT COAST.—Light Retail, Dispensing, and Prescribing Business, quite unopposed; returns £950; net profit £300; low rent; shop is neatly fitted and well stocked; price £550.

4.—DEVON (Seaside Town).—Very profitable Light Retail, Dispensing, and Prescribing; returns £820; net profit over £300; several valuable Proprietaries; fine shop; splendid position; owner retiring; price £725.

5.—HOME COUNTY (Inland Health Resort).—Good-class Dispensing and Light Retail; over 2,000 Prescriptions yearly; returns £600, increasing; net profit £190; handsome pharmacy; price £450; strongly recommended.

6.—HERTS (Market Town).—Good-class Family Retail Business; returns nearly £700, increasing; good position; low rent; modern-fitted shop, well stocked; price £430.

7.—SOMERSET.—Light Retail, Prescribing, and Photographic Business, in small market town; returns £526; net profit £160 to £180; nice house; low rent; price £250; part can remain.

8.—LONDON, S.W.—Good middle-class Retail, Dispensing, and Prescribing Business; very few Patents; returns £1,265; net profit £400; large, well-fitted shop, splendid position, and well stocked; very good house; price £950.

9.—LONDON, N.—Good middle-class Retail Business, a few miles out; returns over £750; net profit £250; attractive modern Pharmacy, well fitted and stocked; price £450, simply valuation.

10.—NORTH OF ENGLAND.—Light Retail, Dispensing, and Prescribing Business, in splendid position in an important town; returns £2,060, with room for increase; very convenient premises; large well-fitted shop, and heavily stocked; price about £1,250.

11.—BANKS OF UPPER THAMES.—Good-class Retail and Dispensing Business, in best position of good residential town; returns £1,000; net profit £300; attractive pharmacy; exceptionally well stocked; price £800, or near offer.

12.—SOUTH COAST.—Good-class Retail, Dispensing, and Prescribing Business; returns about £750; very good profits; splendid position; opposition weak; modern pharmacy, well fitted and stocked; price £500.

13.—LEICESTER.—Light Retail and Dispensing; returns £3 a week; very few Patents; scope for much increase; low rent; attractive shop, well fitted and stocked; owner leaving trade; price £800.

14.—SOUTH-WEST COAST.—Good-class Light Retail, Dispensing, and Prescribing Business in small seaside town; returns £262 net profit about £200; good house; modern-fitted shop, well stocked; price £25 and valuation.

15.—SUFFOLK.—Must be sold; unopposed Village Business; returns £6 weekly; no Patents sold; scope for increase; nice house and garden; rent £12; nearest opposition 6 miles; price £100.

16.—DENTAL PRACTICE for Disposal, in good market town, 30 miles out, on main line, yielding a net profit of £150 a year; capable of much increase; price for early sale £100.

17.—LONDON, W. (few miles out).—A sound Light Retail, Dispensing, and Prescribing Business; returns £625; profits above average; very low rent; long lease; well-fitted shop, and fully stocked; price £450, little more than valuation; personally inspected.

18.—LONDON, N. (main road).—Light Cash Retail, Dispensing, and Prescribing Business; returns £1,400, increasing; very handsome pharmacy, in excellent position, and well fitted and stocked; price £830.

## BUSINESSES WANTED.

MESSRS. BERDOE & FISH having recently disposed of a large number of businesses, are in immediate want of sound concerns, returning from £750 to £3,000 for cash purchasers still unsuited; also a first-class business in London or Provinces showing net profit of £500 to £800 per annum. Correspondence invited, terms sent on application.

J. G. BERDOE established the firm in 1870, and W. S. FISH was apprenticed to him in 1877.



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 UNDERTAKEN ON REASONABLE TERMS BY  
**H. P. ALEXANDER, Licensed Valuer**  
 FOR  
**R. LACKIE, Shen Tower Bridge Road, LONDON, S.E.**  
*Businesses Wanted and for Sale.  
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**TOMTOM**  
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**THOS. TOMLINSON & SON.**  
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**FRED<sup>K</sup>. W<sup>M</sup>. SMITH,**  
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**3 BELGRAVE TERRACE, LEEDS,**  
 has always a number of good Businesses for Sale, also Clients open to Purchase good, sound concerns. Strict secrecy. Correspondence solicited. Valuations for Transfer, Probate, and Stocktaking on reasonable terms.

## TO SUBSCRIBERS ABROAD.

We desire particularly to draw the attention of Colonial and Foreign Subscribers to the fact that in cases where they require partners, agents, or assistants, or wish to sell their businesses, an advertisement in this Supplement, placed in every copy of "The Chemist and Druggist," should be the readiest means of helping them to attain their object. The tariff for such announcements is given under the appropriate headings in the Supplement. Instructions and remittances can be sent to us direct or through the advertisers' correspondents in this country.

# BUSINESSES FOR DISPOSAL.

3s. 6d. for 50 words or less; 6d. for every 10 words beyond, prepaid.

NOTE.—Replies can be addressed to this Office and forwarded to the Advertiser for an Additional charge of 6d.

## COLONIAL BUSINESSES.

We call the special attention of our Colonial subscribers to the opportunity this Supplement affords when they wish to dispose of their Businesses, of getting into touch with likely buyers either at home or in the Colonies.

**BURBURN.**—Old-established Retail with Photographic, in main street; working-class neighbourhood; ample scope for extending; good Prescribing trade; price about £400; further particulars on application; immediate disposal; shop to be had on lease at rent; best fitted shop in town. 261/16, Office of this Paper.

**BURFORD.**—Offers wanted for the Chemist and Optical Business of the late Mr. T. G. Forshaw, M.P.S., 138 Westgate; splendid opportunity for qualified and energetic young man of obtaining a well fit-up business at a nominal price; a low figure will be accepted for immediate sale; stock and fixtures cost £500. Particulars from, or offers to, Forshaw & Ellison, Dentists, 140 Westgate, Bradford, Yorks.

**BRIGHTON** (Near, in Small Country Town).—Chemist's Light Retail and Dispensing Business; handsome modern, well-fitted shop; good house, bath, garden, and telephone; good opening for Photography and Dentistry; valuation only. "Chemist," c/o Messrs. Ellic & Son, 54 Ship Street, Brighton, Sussex.

**GREAT YARMOUTH.**—Chemist's Business, Dispensing, Light Retail, and Photographic; established over 80 years; central position; capital required about £1,000. Apply, Lovewell Blake & Co., Chartered Accountants, Great Yarmouth.

**KENT** (within 20 miles of London).—A good-class Family Retail Dispensing Business; returns nearly £1,000, and Dispensing over 200 new Prescriptions yearly; no opposition; elegantly fitted shop, thoroughly well stocked; nice house and garden; price £750; anyone wanting a good-class business in healthy locality, with certainty of steady increase, should see this. Apply, "Kent" (263/3), Office of this Paper.

**LEAMINGTON.**—Immediate Sale, by order of Executor.—Old-established Homeopathic Pharmacy, suitable for middle-aged man with small Wholesale; good profits. Apply, Marriott, 49 Parade, Leamington.

**LEWIS, W.**—Chemist's Shop (small); genuine bargain; 27 years existence; cash down; low price; upper rooms let off, so rent owner leaving; populous neighbourhood; great scope for development. Apply, Quick, No. 35 North End Road, West Kensington, W.

**LONDON, E.**—Neglected Business, under managers; good scope for extended trade; rent moderate; comfortable residence, in main road; terms simply value of stock and fixtures. Apply, "Beta" (260/15), Office of this Paper.

**LONDON** (West-end).—Drug-stores for Disposal on account of ill-health; shop nicely fitted; good saleable stock; modern window in central position; house small, but compact and in good condition; £48; returns £7 to £8 weekly at good profits; patents under £1, with ordinary retail and prescribing above average; qualified man would soon double returns; £95 or close offer. "Shildon" (263/3), Office of this Paper.

**MANCHESTER** District (Manufacturing Town).—Old-established Light Retail and Photographic Business; good position; roomy house; well-fitted shop; good stock; several good Specialities; returns about £12 weekly; rent and rates moderate; low price on account of ill-health; £260. "Immediate" (258/21), Office of this Paper.

**N.E. COAST.**—Small Business for Sale in rapidly increasing town on N.E. Coast; turnover about £450; established 78 years; sole reason for sale, owner entering profession. Apply, by letter, 260/30, Office of this Paper.

**SOUTH COAST.**—A good-class Business for Disposal owing to ill-health; exceptionally good house, in best position of the main street; rent £50; valuable lease; cash buyer with £550 will secure a bargain. Apply, in the first instance, to "W. A." (254/33), Office of this Paper.

**SOUTH COAST.**—Old-established Business for Disposal; Light Retail, Dispensing, and Prescribing, in fashionable seaside town; returns under management £550; nicely fitted, well stocked; good opening for Photography; no reasonable offer refused to effect an immediate sale. Apply, "Sulphonal" (264/4), Office of this Paper.

**SHROPSHIRE.**—Good-class Family Retail, Dispensing, and Agricultural Business for Disposal, in the finest position of good market town; no heavy trade; returns nearly £1,150, at good profits; convenient house; rent £50, on lease; very commanding shop, well fitted and stocked; price £1,000, or valuation and small goodwill; opportunity seldom offered. "Salop" (263/30), Office of this Paper.

**SUBURBAN** Business for Sale; S.E. district of London; same hands many years; price low. "R. S." (260/29), Office of this Paper.

**WILTSHIRE.**—Good-class Family Retail and Dispensing Business in small country town, on main line of rail; doing a steady business and making a net profit of nearly £200 per annum, after clearing expenses; well fitted and stocked shop; comfortable house and large, well-stocked garden; price £450, stock and fixtures worth £400. 263/003, Office of this Paper.

**YORKSHIRE** (small Manufacturing Town).—Best position; well fitted and stocked; returns £1,800, at good prices; old-established, and capital opportunity for an energetic successor; income £1,000. Apply, "Rodagen" (261/36), Office of this Paper.

**A** CHANCE of a lifetime to purchase at your own price; Manchester outskirts; must be sold (through illness); corner Pharmacy; good thoroughfare; established 40 years; good family house; suit small capitalist; offers invited. For particulars apply "Statim" (261/34), Office of this Paper.

**B**RANCH; London suburb; too far away from head depot for supervision; low rent; nicely fitted; splendid opportunity for single man; house let off to good tenant; immediate purchaser can buy valuation stock and fixtures. Apply, "Branch" (263/20), Office of this Paper.

**C**HEMIST'S, Drug-stores, and Fancy Goods; fine position, W. London suburb; premises specially fitted and arranged; all up-to-date; good house; returns £14 per week at large profits; easily increased; price £550 all at, inc. large stock. Apply, Bird & Co., 81 Chancery Lane.

**F**OR Sale, a Provincial College of Pharmacy, in a healthy, flourishing condition; the advertiser's reason for sale will be found satisfactory; this is an excellent opportunity for a vigorous and energetic man. Apply to "Educator" (147/10), Office of this Paper.

**G**ENUINE Retail and Prescribing Business with good Specialities for Sale; good house and stores; small garden; present returns £570 under manager, did £750 2 years ago under principal, and could easily be worked up again; shows good profits; satisfactory reasons for disposal; price £450. "James" (261/30), Office of this Paper.



## BUSINESSES FOR DISPOSAL

(continued.)

**G**ENUINE Retail and Prescribing Business in busy Yorkshire town; returns £370 under manager, could be greatly increased; good profits; price £200, or near offer. Hart, Chemist, 3 Cemetery Road, Doncaster.

**G**OOD-CLASS Business; Western Suburb, London; turnover £800 per annum under management; steadily increasing for last 3 years; modern house; shop well fitted and stocked; price about £600. Apply, "Suburbs" (261/17), Office of this Paper.

**I**MMEDIATE Sale through Death.—Same hands 23 years; old-established Dispensing Pharmacy; London, W.; returns about £1,600; long lease; good position; accept for quick purchase £1,100. Apply, first instance, Grinditch, Aberdeen House, Hersham, Walton-on-Thames.

**I**N Bankruptcy, re G. J. Walker, 7 Guildhall Street, Lincoln. Chemist and Druggist.—For Sale, as a going concern, the Stock-in-trade, Fixtures, etc., at valuation. For further particulars apply to G. W. Sparrow (Sparrow & Thomas), 11 Bowling Green Street, Leicester, Incorporated Accountant, Trustee.

**P**OPULAR Seaside Resort (East Kent).—Old-established Dispensing, Light Retail, and Photographic; returns average over £1,000; net profit about £240; low rent; comfortable house; price required £500 (value of stock only), or near offer. "Vim" (260/33), Office of this Paper.

**S**OUND Light Retail Cash Business; North Middlesex; returns £700; net profit over £200; growing district; low rent; valuable lease; every investigation courted; moderate price; no agents. 258/13, Office of this Paper.

**T**HE Trustee is prepared to receive offers for the Stock-in-Trade and Fixtures; cost price approximately £500. For particulars apply Hart, Moss & Co., Chartered Accountants, Rotherham.

**£60** cash and £100 in weekly instalments of £1 will purchase a well fitted and stocked Drug-stores in a busy market town 20 miles from London; receipts £6 10s. weekly; net profits £2 15s.; few Patents; low inclusive rent; no opposition; smart man can easily double present takings; this is a genuine bargain, the chance of a lifetime; owner leaving trade. 261/31, Office of this Paper.

**£150** and balance by arrangement; Light Retail and Prescribing Business, in busy position Northern city; returns £500, can be largely increased; good house attached; satisfactory reasons for disposal. Apply, "Radix," c/o Raines & Co., York.

**£160** net cash.—An old-established Pharmacy (Liverpool); central position, good main thoroughfare; rent £40 and taxes; shop and house; returns over £450 per annum under management; modern fittings and cases; well stocked; not changed hands for the last 15 years. "G." c/o H. Jackson & Sons, 29 School Lane, Liverpool.

**£200.**—Medium-class Light Retail, 12 miles from London, returning nearly £500; owner having accepted partnership in large business wishes to sell immediately; excellent opening for Extractor. 264/2, Office of this Paper.

## BUSINESSES WANTED.

**M**IDLANDS.—Wanted, genuine concern; net profit not under £200; particulars in confidence; full investigation required. State lowest price (advertiser not an agent), "Winton" (260/21), Office of this Paper.

**B**USINESS wanted in or around London, with house attached; £200 cash down as part payment. 261/29, Office of this Paper.

**P**URCHASER requires small Business in London or South Coast immediately. Write, giving full particulars, etc., Barrow, Stanlake House, Blomfield Road, Shepherd's Bush, London, W.

**W**ANTED, management of small Branch (or compact little Business), London district, with view to gradual purchase; ability, integrity, and business-like methods guaranteed; in present position as manager 7 years; aged 36; married; references and credentials thoroughly trustworthy; all communications treated as strictly confidential. "Non-Reg." (260/18), Office of this Paper.

**W**ANTED, within 20 miles of London (not Northern suburb), a small Business with scope for increase; a neglected branch not objected to, but rent must be moderate and house contain at least three bedrooms; cash price from £150 to £200. Particulars, in confidence, to "Pharmacy" (263/24), Office of this Paper.

## FOR SALE.

**E**NTIRE Fittings and Utensils, including counter, dispensing screen, wall-cases, perfume case and desk, 2 counter-cases, drug-drawers, shop rounds and jars, modern window fittings, mortars, 3 pairs scales and weights, mirrors, pill-machine, till, etc.; cost £95 12 months ago; accept £45 f.o.r. Garbutt, York Street, Stockton.

## SALES BY AUCTION.

BY ORDER OF MORTGAGEES.

EXCELLENT PREMISES for Drysalts, Manufacturing Chemist, etc. Convenient to the Centre of Manchester.

**T**WO BE SOLD BY AUCTION by Mr. W. H. ROBINSON at the Thatched House Hotel, Manchester, on Tuesday, May 19, 1908, at 6 o'clock prompt, subject to conditions to be then produced. ALL THOSE two plots of land, with the works and stores and 6-stall stable thereon, situate No. 8 Commercial Street, Knott Mill, Manchester, with the boiler and engine. The premises have a frontage to the River Medlock.

The site contains 940 square yards or thereabouts, and is leased for the residue of terms of 999 years, and subject to ground-rent amounting to £52 13s. 4d. Vacant possession can be had on completion.

For further particulars apply to the Auctioneer, Cromwell Buildings, Blackfriars Street, or to Messrs. Sale & Co., Solicitors, 29 Bb Street, Manchester.

## SALES BY PRIVATE TREATY.

**T**O be Sold, by private treaty, the well-known premises and "Fulwood Drug-stores," Victoria Road, Fulwood, as a going concern; established upwards of 20 years; good opening for a young energetic man; the premises are freehold and free from ground-rent. For particulars apply, Messrs. Ward & Newsham, Solicitors, 7 The Street, Preston.

**W**ESTMINSTER COLLEGE OF CHEMISTRY AND PHARMACY, LTD., Trinity Square, London, S.E.—To be sold, immediately, by private treaty, the valuable goodwill and collection of this College, together with the Apparatus, Appliances, Furniture, and Stock of Chemicals; there is a lease of the common premises with about 18 years to run. Orders to view and for particulars may be obtained from Mr. J. Edward Myers, F.R.S., Trafalgar Buildings, Northumberland Avenue, London, W.C.

## TO LET.

**L**ARGE Town in West of England.—Old-established Chemist's shop; splendid opening; owner, who is a Chemist out of business, will give every assistance to make business for new tenant; rent £40. Apply to "Alpha" (261/28), Office of this Paper.

**T**O LET.—Large square Shop and House; splendid position for Chemist and Druggist; surrounded by numerous good residences; only one chemist within one mile with about 7,000 to 8,000 population; rent low. Apply, "A. B.," 56 Seaside, Eastbourne.

## PARTNERSHIPS.

**A**N opening has occurred in a Wholesale Druggist's for a gentleman about 35; a qualified Chemist with wide and first-class experience in the management of a Pharmaceutical Laboratory and with some knowledge of the commercial side of the business; one competent to assist in the development of business and able to reduce capital might secure a directorship; no application entertained unless containing evidence of similar first-class experience elsewhere; an exceptional opening for a gentleman possessing proved ability and energy. 165/71, Office of this Paper.

**I**N an old-established Business in the North of England an opening occurs for a Partner; an active man of about 30, accustomed to first-class Counter trade and with a fair amount of capital. "Primus" (260/26), Office of this Paper.

**P**ARTNER required for a Chemist's in central position, principal place in prosperous West of England town; good opening for Homoeopathy; well-fitted, up-to-date premises recently opened and doing £5 per week under indifferent management and insufficient hours; presents a splendid future to beginner with £225 for half-share; good house attached for use of partner after investment. Apply, Bird & Co., 81 Chancery Lane, W.C.

**P**ARTNERSHIP required in Analytical or Consulting Chemist's Practice, London or Provinces, by University man (24) (A.D.) with £1,000, and experienced in Foods, Drugs, Water, Agricultural and Brewing materials. Apply, Arnold & Co., 60 Queen Victoria Street, London.

## APPRENTICESHIPS.

**I**NLAND Health Resort.—Vacancy for Apprentice in first-class business; easy hours and time for study; outdoors. "Capital" (260/53), Office of this Paper.



# RESULTS

OF ADVERTISING IN THIS  
SUPPLEMENT LAST WEEK *Apr 18/08*  
NATURE OF ADVT. REPLIES

ASSIST! (WHOLESALE)	31
ASSIST! (QUALIFIED)	10
BUSINESS WANTED	8
INVOICE CLERK	7
QUAL. ASSIST!	7

This blackboard demonstrates that Advertisers using these  
can get a ready response to their announcements.  
The figures only refer to some of the letters RECEIVED  
AT OUR OFFICE on behalf of advertisers who use a  
number or nom de plume.

PHOTOGRAPHS AND TESTIMONIALS.—Assistants should  
send their photographs to advertisers of Situations Open  
as they are specially requested to do so, and then en-  
close a stamp for return. In no case should the originals  
of testimonials be sent; copies suffice until negotiations  
are approaching completion, when the originals may be  
submitted at the employer's risk.

## SITUATIONS OPEN.

3s. 6d. for 50 words or less; 6d. for every 10 words beyond,  
prepaid.

### RETAIL.

**BIRKENHEAD.**—Wanted, a smart Junior, about 22 to 24, for good-  
class Dispensing business; must be reliable and experienced  
Dispenser. Apply, with usual particulars and salary required (out-  
doors) to W. S. Robinson, York Place, Birkenhead.

**BIRMINGHAM.**—Junior (outdoors) for quick Cash trade; must be  
a good Counterman and Dispenser. Hedges & Son, Chemists,  
Birmingham.

**BIRMINGHAM.**—Qualified Assistant, about 24, wanted, at once,  
for high-class Dispensing and Photographic business; no Sun-  
day duty; half-day each week; outdoors. Apply, with photo and  
reference, to H. H. Marshall, Chemist, Moseley, Birmingham.

**BLACKBURN.**—Wanted, at once, a single, unqualified, steady and  
reliable Assistant, about 26, outdoors, for high-class Dispens-  
ing and Light Retail business; must be a good Dispenser and  
Counterman; one seeking a permanency preferred. Full particulars  
as to salary, age, height, and references, enclosing photo, Aspinall,  
Chemist, Blackburn.

**BRADFORD.**—(Immediately).—Young qualified Junior, used to high-  
class business, about 22 to 25, for indefinite period, but certain  
(and notice one month) if satisfactory; hours 8.30 to 7.30; no Sun-  
day duty; outdoors. Photograph, with particulars of age,  
salary required, references, in first instance, to "B. R.," 6 Cunalife  
Terrace, Bradford.

**BRISTOL.**—Wanted, a qualified indoor Assistant from 22 to  
24 years old. Apply, stating height, salary required, enclosing  
photo, with full particulars, to Glaisyer & Kemp, 11 and 12 North  
Street, Bristol.

**BRISTOL.**—Wanted, Manager to take sole charge of small busi-  
ness about 30; qualified; good references required. Apply,  
with full particulars and salary required, Dudley, Short & Co.,  
Chemist, Brighton.

**CHESTER.**—Wanted, qualified Junior, with good Dispensing ex-  
perience. Apply, stating age, height, experience, and salary  
required (indoors), with photo, to Thos. Carter, Pharmaceutical  
Chemist, Boughton, Chester.

**CHESTER.**—Improver or young Junior; indoors; enclose photo  
and state salary required; time for study could be arranged.  
W. Roberts, 73 Brook Street, Chester.

**CLEETHORPES.**—Manager wanted for quick Cash trade, with  
view to purchasing business preferred. Apply, G. R. Cook,  
Chemist, Cleethorpes.

**COLNE (Lancs).**—Wanted, May 18, qualified Assistant; able to  
take charge; abstainer; knowledge of Photographic trade; age  
about 30; good references; half-holiday weekly; no Sunday duty;  
permanency. Apply, stating experience and salary required (out-  
doors), Duckworth, Chemist, Colne.

**DOWLAIS (Glam.).**—Wanted, an energetic, trustworthy Junior  
Assistant; indoors; comfortable home; the hours are light;  
close at 1 p.m. on Thursdays; Sunday duty once a month for two  
hours only. Apply, giving full particulars as to age, experience,  
height, and enclose photo (to be returned), to Evans, Chemist,  
Dowlais.

**EXETER.**—Wanted, immediately, unqualified Assistant. Apply,  
with photo, stating age, experience, and salary required, to  
Aplin, Chemist, Exeter.

**FALMOUTH.**—Wanted, at once, for good-class business, qualified  
Assistant, abstainer, with good experience in Dispensing and  
Photographic work; must be good Counterman. Apply, stating  
age, height, salary, and full particulars, to Wilmer & Hocking,  
Chemists, Falmouth.

**FOLKESTONE.**—A smart Junior, for good-class cash business;  
knowledge of Photography essential; indoors. Price, M.P.S.,  
Tontine Street.

**GUILDFORD, Surry.**—Messrs. Cooper & Co., Chemists, Sutton,  
Surrey, require for their Guildford branch a Part-time Assis-  
tant or Junior; salary offered £1 to 25s. per week, according to hours  
worked. Apply as above, enclosing c. de v., with particulars as to  
age, height, and references.

**HENLEY-ON-THAMES.**—Wanted, immediately, an Assistant as  
Dispenser and Bookkeeper; must be quick and used to doctors';  
dispensing; also a turnover Apprentice or Improver; sleep out;  
meals provided. Apply, with full particulars of salary, etc., Turton  
Green, Chemist, Henley-on-Thames.

**HENLEY-ON-THAMES.**—Junior; indoors; good Dispensing and  
Photographic; half-day weekly; state salary required. A. Cart-  
wright, Henley-on-Thames.

**HERNE BAY.**—Wanted, about May 18, an experienced Assistant.  
Apply, with photo and usual particulars, T. B. Cornfoot,  
Chemist, Herne Bay.

**HIGH WYCOMBE.**—Smart Junior required for a short period in  
a Cash business; outdoors; easy hours; no Sunday work;  
weekly half-holiday. Usual particulars, stating age, salary re-  
quired, and photo (if possible), which will be returned, to Fuge &  
Co., Chemists, High Wycombe, Bucks.

**HITCHIN.**—Outdoors, for Dental department only; good Ex-  
tractor; short hours; instruction given if required in im-  
pression-taking, etc.; first-class references required. Payne, 2 High  
Street, Hitchin.

**INDIA.**—Wanted, at once, for Calcutta, young man with good  
experience and first-class references; must be strong, healthy,  
unmarried, and with Minor qualification; 4 years' agreement; salary,  
rupees 200, 225, 250, and 300 monthly; passage paid out and home.  
Apply, stating experience, age, etc., to 251/34, Office of this Paper.

**LEICESTER.**—Junior required, immediately; indoors; knowledge  
of Photography essential. Please state salary required, with  
full particulars, references, etc., Clear, Chemist, Leicester.

**LONDON, S.W.**—A qualified Assistant wanted at once, indoors,  
with fair experience and thoroughly reliable; good salary;  
aged 22 to 23. Apply, Davies, 485 King's Road, West Chelsea, S.W.

**LONDON, N.**—Senior, unqualified, in or out doors, 25-27; wanted  
by May 1; must be good Dispenser and Counterman and used  
to Photographics. Full particulars, with photo, references, and  
salary required, W. A. Sinclair, 7 King's Parade, Church End,  
Finsbury.

**LONDON, W.**—Wanted, an Assistant, about May 15; indoors;  
about 22 years; good Dispenser. Apply personally to J. Mait-  
land & Son, 10 Chester Place, W.

**LONDON, S.W.**—Required, Dispenser; Minor qualifications; age  
about 25; salary to commence 45s. per week (outdoors); no  
Sunday duty; hours of work approximately 8.45 A.M. to 6 P.M.; also  
wanted, same establishment, Counterman; unqualified; age about  
25; salary to commence 35s. per week; hours of work as above.  
State full particulars to 1137, Sell's Advertising Offices, London, E.C.

**LONDON, N.W.**—Smart Assistant wanted; about 24; indoors;  
weekly half-holiday; Dispensing experience essential; personal  
interview preferred. Apply, C. A. Noble, 110 Mill Lane, West Hamp-  
stead.

**LONDON, S.W.**—Unqualified Junior Assistant wanted for good-  
class Store business; outdoors; one just completed apprenticeship  
preferred; Photographic knowledge essential. Apply, giving  
full particulars and salary required, to A. W. Herbert, Chemist,  
77 Atlantic Road, Brixton, S.W.

**LONDON, S.W.**—Assistant; indoors; qualified preferred; if un-  
qualified not under 24; half-day off weekly. Full particulars as  
to salary, etc., with photo, to Topholme, Earl's Court, London.



# SITUATIONS OPEN—cont.

## RETAIL—continued.

**LONDON.**—First-class man to remodel neglected business in S.E. London; main road, occupying splendid position; owner unable to give personal attention; the business needs the introduction of Photographic and Optical goods and entire reconstruction on up-to-date lines, and free hand would be given to suitable man. Only first-class men apply to "Chemist" (256/21), Office of this Paper.

**LONDON, W.**—Married man, small family; well up in first-class Dispensing and practical Photography; unfurnished rooms found; personal interview required. Apply to "Choral" (255/12), Office of this Paper.

**LONDON, S.W.**—Wanted, early in May, a competent Assistant; outdoors. Apply, stating usual particulars, with photo (if convenient), to Foster & Dallas, 1 Lavender Hill, S.W.

**LONDON, S.W.**—Wanted, qualified Assistant (indoors), for good class Dispensing and Retail. Apply, with full particulars, J. H. Shacklock, 239 High Road, Streatham.

**LONDON, N.**—Qualified Managing Assistant; about 25; outdoors; one accustomed to Store business preferred. Apply, 182 Stroud Green Road, N.

**LONDON, S.E.**—Junior required, aged 20, for Light Retail and Dispensing business; indoors. Apply, giving full particulars, to Sidney W. Dawson, 56 Knight's Hill, West Norwood, S.E.

**LONDON, S.W.**—Wanted, smart Assistant as Manager; must be a good Counterman and have some knowledge of Photography; liberal commission paid to capable man. Address full particulars to "J. M.," c/o Baiss Bros. & Co., Jewry Street, Aldgate.

**LONDON, S.W.**—Junior Assistant wanted; Dispensing, Photography, Counter, etc.; outdoors; no Sunday duty. Full particulars to "Pharmacist" (261/1), Office of this Paper.

**LONDON.**—Wanted, immediately, a good all-round qualified Manager (married) to take entire charge of small business (house to himself). State salary required, with usual references, which must bear strict investigation, "Chemist" (260/14), Office of this Paper.

**LONDON, W.**—Qualified Assistant; must be thoroughly good Salesman and accustomed to West-end business; also able to converse in French. Apply, the Manager, S. F. Goss, Ltd., 134 Regent Street, W.

**LONDON, W.**—Qualified outdoor Assistant, for high-class Cash business; age 26 to 28. Bouilly, 85 Bishops Road, Bayswater, W.

**LONDON, S.E.**—Wanted, unqualified Junior Assistant (indoors) for medium-class Prescribing and Photographic business; must be energetic and good Salesman. Apply, letters only, stating height, salary, when disengaged, enclosing photo (returnable), "M.," 33 Croydon Road, Penge, S.E.

**LONDON, W.C.**—Part-time Assistant wanted (Junior, male) for about 14 hours weekly; Thursdays and Fridays at 5, Saturdays at 2; alternate Sundays at 6. Apply personally, Burden & Co., Pharmacists, 41 Store Street, W.C.

**LONDON, S.W.**—Wanted, 2 qualified (not Hall) Dispensers. Apply personally, between 3 and 5, to J. B. Wigginton, Chief Chemist, Harrod's, Ltd., Brompton Road, S.W.

**LONDON, N.W.**—Wanted, a thoroughly capable Assistant, gentlemanly (qualified or not), indoors, for high-class Light Retail and Dispensing business. Apply, stating particulars and salary required, to W. J. Dalby, 6 Canfield Gardens, Finchley Road, N.W.

**LONDON, S.W.**—Junior for Light Retail and Dispensing; indoors; salary £30. A. W. Barker, Chemist, 112 Wandsworth Bridge Road, Fulham, S.W.

**LONDON, N.**—At once; Assistant; about 25; must be good Counterman and have knowledge of Photography. Long, 128 Upper Clapton Road, N.E.

**LONDON, W.**—Smart Junior for Stock and Window-dressing; must have good references. Apply, Henry Cooper & Co., Ltd., 24 Greek Street, Soho, W.

**MANCHESTER.**—At once, reliable and experienced Assistant; not under 24; accustomed to first-class Dispensing and Photographic. Apply, by letter in first place, giving usual particulars, but personal interview will be necessary before engagement, J. Woodruff Walton, Higher Broughton, Manchester.

**MARLOW.**—Wanted, immediately, unqualified Assistant for good-class Retail, Dispensing, and Photographic business; outdoors. Apply, stating usual particulars and salary required, enclosing photo (if possible), L. H. Snow, 33 High Street, Marlow.

**NEATH.**—Wanted, smart Junior for good-class Dispensing and Retail business; easy hours; no Sunday duty; good salary to suitable man. 254/37, Office of this Paper.

**NEWCASTLE-ON-TYNE.**—Qualified man (young) wanted for small branch; must be capable of working it up. Apply, stating salary, age, references, and experience to 261/35, Office of this Paper.

**NORTHWOOD (May 18).**—A gentlemanly Assistant; thorough well up in Dispensing and capable of taking charge; must have had good experience; outdoors; applicants kindly state a qualification, and salary required. H. B. Sharman, Northwood Middlesex.

**PAIGNTON.**—Junior Assistant wanted immediately in a good class Dispensing business where 3 others are kept; indoor. Sarson, Chemist.

**RHYL.**—A Junior wanted for Light Retail and Dispensing business; age about 20. Please state age, height, salary required (indoors), and references, enclose C.D.V. if convenient, T. Davies, Rhyl.

**SCOTLAND.**—Qualified Assistant required; good Prescriber. Tooth Extractor; active; good salesman; smart appearance. Apply, stating age, experience, salary required, and whether stainer, also send copy testimonials, to 255/10, Office of this Paper.

**SIAM.**—Wanted, qualified Assistant, middle April, about 26; married; Continental experience, with knowledge of French or German; preference given to one with knowledge of Photography; second-class P. & O. Mail out and first-class internet P. & O. home; 3 years' agreement; salary £26, £28, £32 month, with free room. Apply, with copies of testimonials and photo "R. L.," c/o S. Maw, Son & Sons, 7 to 12 Aldersgate Street, E.C.

**SOUTHPORT.**—Qualified Assistant, with experience in Dispensing and Photography. State age, height, salary required, and enclose photo, to Foggitt, Pharmacist, Southport.

**WANTAGE.**—Wanted, at once, good Assistant (unmarried or Country Retail and Doctor's Dispensing; must be quick and accurate Dispenser and accustomed to country trade; permanent to suitable man. Full particulars and references, Clegg & Co., Wantage.

**WARE (Herts).**—Wanted, Junior or Improver, about 20 or 22, for a good-class country business; hours easy; half-a-day week off; no Sunday duty; indoors or outdoors. State salary required and full particulars, and enclose photo (to be returned to Woollett & Coggin, Chemists, Ware, Herts).

**WEST OF ENGLAND.**—Married Assistant wanted; not over 30; accustomed to the general routine of a good-class business and seeking a permanency; must live on premises. Full particulars to "X" (260/35), Office of this Paper.

**A SENIOR Assistant (indoors) is required for a first-class Dispensing business in London; when applying please enclose photo (if possible) and give full particulars of experience and salary required. "S. K." (260/11), Office of this Paper.**

**ASSISTANT; qualified preferred; half-day off weekly. Full particulars, with photo and salary required, "X.," c/o W. W. W., 40 Aldersgate Street, E.C.**

**CHEMIST-OPTICIAN; young man, qualified, wanted for aid; must be single, healthy, and practically experienced in Optics. Apply, giving full particulars of experience, in confidence, to "Optician," William Porteous & Co., Glasgow.**

**DISPENSER (lady) wanted for the Kensington Dispensary and Children's Hospital; easy hours (no Sundays), but must be able (if required) to give clerical assistance to Secretary non-resident, but meals during hours of duty; salary £48 per annum to commence. Apply, by letter only, to E. Lydekker, Esq., 1 Philbeach Gardens, S.W.**

**IMMEDIATELY, for a permanency, a thoroughly competent Manager (qualified); aged 26 to 30 years; married preferred; good Prescriber and able to extract Teeth, with knowledge of Optics; first-class references indispensable; salary to commence at £2, and good percentage, with house, rates, and gas included. Apply personally, or if by letter enclosing carte, to Charles Cowles, 37 Broadway, Stratford, E.**

**IMPROVER; indoors; Mixed trade; small mining town. Hours 8.30-7.30, Fridays and Saturdays later; close on Wednesday at 1 p.m.; no Sunday duty. Full particulars, wages required, references, etc., with first letter (photo if convenient), F. Jones, 63 Neville Street, Houghton-le-Spring, Co. Durham.**

**JUNIOR Assistant wanted, soon as possible, for good Dispensing business at Tunbridge Wells; first-rate experience; comfortable place; indoors; good education and address. Give full particulars. Apply to R. A. Robinson, 195 Brompton Road, London, S.W.**

**LEWIS & BURROWS have a vacancy for a first-class Assistant for the West-end. If application is made by letter, kindly enclose photograph and full particulars to 22 Great Portland Street.**

**MANAGER; outdoors; must be respectable and sober; good; highest references; live in; £3. Apply, "Allenbroth" (257/1), Office of this Paper.**

**MAY.**—Smart Assistant wanted; qualified or unqualified; must have had good Counter and Prescribing experience; possess best references. Please send full particulars, with photo, to W. A. McCarthy, 50 High Street, Grays.

**QUALIFIED Assistant for brisk Counter, Dispensing, and Agricultural business in large provincial town; outdoor; full hours; no Sunday duty; state age, height, salary required, and details of experience in first letter. Address, 260/31, Office of this Paper.**



**QUALIFIED Assistant** (about 24) required, with good experience in Dispensing and fair Photographic knowledge. Apply, "atim," c/o Messrs. Bullock & Co., 3 Hanover Street, W.

**CART Junior** for suburbs; used to Store trade and Photography; no Sunday work; apply by letter, giving full particulars and salary required; references must bear strictest investigation. "A," 68 Clarendon Road, West Croydon.

**ASSISTANTS.**—Wanted, Junior or Improver; outdoors; hours 9 to 9; half-day holiday; opportunity to acquire dentistry knowledge; prospective situation. Hulmes, Chemist, Nottingham.

**WANTED,** a competent Senior of gentlemanly appearance and address, not over 33 years of age, for a quick Dispensing and Retail in London suburb; must have had good Dispensing experience and be accustomed to good-class business; in or out doors. Apply, 263/13, Office of this Paper.

**WANTED,** qualified Branch Manager; capable, sober, industrious, and gentlemanly; references must bear the strictest investigation. Apply 258/23, Office of this Paper.

**WANTED,** good Junior, wishing time for study, as Doctor's Dispenser; work about 5 hours per day; £1 per week (out-ds); Co. Durham. Apply, 255/1, Office of this Paper.

**WANTED,** Manager for Chemist's business, to live on the premises. Apply, with full particulars, to "S. N." (263/38), Office of this Paper.

**OSE Tables for Students of Pharmacy.**—We have printed as a twenty-four page booklet a table showing the adult doses in ordinary cases of the principal medicinal agents, and have added metric equivalents for dispensing and a complete table of atomic weights, comprising the B.P. figures and the International Committee's latest pronouncements ( $O=16$  and  $H=1$ ). The booklet measures 4 in. by  $2\frac{1}{2}$  in., and can be carried in the vest pocket. Copies can be obtained from THE CHEMIST AND DRUGGIST (Book Department), 42 Cannon Street, London, E.C., for three penny stamps per copy, post free.

## WHOLESALE.

**LONDON.**—Wanted, a competent and experienced Pillmaker; fully acquainted with the latest methods of pill manufacture by hand and steam power, and with sound practical knowledge of pill-making in all its branches. State age, experience, and wages referred to 263/26, Office of this Paper.

**REPRESENTATIVE** wanted to take up Smith's Curexena Preparations as side-line; good commission offered; state area covered. Maurice Smith, Kidderminster.

**WELL-ESTABLISHED** Company offer tactful, energetic man for exceptional terms for spare time employment; inquiries invited. Address, 257/38, Office of this Paper.

**CHEMIST (Manufacturing) Manager;** good organiser and able to introduce new articles; give references, salary expected. Apply, "Chemist," George Walker & Son, Ltd., Reid Street, Edgerton, Glasgow.

**RUGGISTS'** Sundry firm, with connection in the following districts, require experienced Traveller; Belfast, Dublin, North Wales, and Liverpool. 177/48, Office of this Paper.

**RY COUNTER.**—London Wholesale Druggists require man, aged 22 to 25; thoroughly experienced at Dry and Chemical Counters; capable, reliable, and accurate; must have first-class references. State particulars of previous situations, wages expected, if disengaged, to 259/39, Office of this Paper.

**VOICE Clerk,** with knowledge of trade, wanted by London Wholesale Druggists. Write full particulars to "S." (178/58), Office of this Paper.

**JUNIOR Clerk** for about 6 months. B. H. & Co., 6 Giltspur Street, E.C.

**LABORATORY.**—Wanted, by a Scotch firm of Wholesale Druggists, a thoroughly practical, working Chemist, Major qualification, experienced in manufacturing Galenicals on a wholesale scale, and capable of taking charge. Apply, with full particulars of experience, enclosing copies of testimonials, if any, stating age and salary required (applications will be treated as confidential), 176/46, Office of this Paper.

**TRAVELLERS** wanted, on commission, who are able to place large quantities of Carbolic Tooth-powder in bulk and in tins at low prices. Apply, enclosing references, to "F. W." (174/16), Office of this Paper.

**WANTED,** an experienced Assistant for the Surgical Instrument business. Apply to John Clarke & Co., Ltd., 8 Donegall Square West, Belfast.

**WANTED,** at an early date, a Gentleman to represent an old-established Wholesale Druggist Firm in the Provinces; must have a thorough knowledge of the trade, and capable of calling on doctors and Chemists. Please apply, with photo (if possible), stating age, experience, references, and salary required. Communications will receive strictest confidence. Apply, 255/3, Office of this Paper.

**WHOLESALE.**—Assistant, Minor qualifications, required for Wet Counter. Apply, stating full particulars, to Timothy White Co., Ltd., Wholesale Chemists, Portsmouth.

## METROPOLITAN WATER BOARD.

### LABORATORY STAFF.

THE METROPOLITAN WATER BOARD propose to appoint the following Officers to serve under the Director of Water Examinations at their Laboratory, No. 20 Nottingham Place, W., viz. :—

(a) Two Laboratory Assistants. Salary £100 per annum.

(b) One Fourth-class Clerk. Salary £100 per annum.

The Laboratory Assistants will be required to undertake such work in connection with bacteriological investigations, whether of water or otherwise, as may from time to time be required by the Director of Water Examinations. Candidates must have considerable practical experience of modern methods of examining waters, sewages, and sewage effluents bacteriologically, and adequate knowledge as regards the morphological and biological characters of excremental and pathogenic bacteria, and should also be familiar with waterworks and the steps taken to purify water.

The Fourth-class Clerk must possess previous municipal experience, and should have a good knowledge of mathematics, bookkeeping, English composition, sanitary science, and a competent knowledge of shorthand and typewriting. His training must have been of such a kind as to enable him to readily arrange and classify chemical and bacteriological statistics and to draw up draft reports on scientific subjects under the supervision of the Director of Water Examinations.

The Officers will be required to give their whole time to the office, and the appointments will be held during the pleasure of the Board.

Applications must be made on official forms, copies of which can be obtained from "The Clerk," Metropolitan Water Board, Savoy Court, Strand, W.C., by forwarding stamped addressed envelope.

The latest time for receiving applications is 10 A.M. on Monday, May 4, 1908.

Canvassing Members of the Board is strictly prohibited, and will be regarded as a disqualification.

Offices of the Board, Savoy Court, Strand, W.C., April 14, 1908.

## SITUATIONS WANTED.

1s. for 12 words or less; 6d. for every 10 words beyond, prepaid.

### RETAIL.

**UNQUALIFIED;** disengaged; Locum or otherwise. "V.," c/o Chemist, 118 Falcon Road, Battersea.

**AS Manager;** aged 43; active; qualified; good references; abstainer. "Optics," Clynderwen, R.S.O.

**EXPERIENCED;** disengaged; smart; Store trade; good Salesman. "Dispenser," 199 Scott-Ellis Gardens, N.W.

**GOOD unqualified;** 32; married; temperate, non-smoker; permanency desired. Dawson, Wilberforce Road, Wisbech.

**UNQUALIFIED;** aged 32; all-round experience; good references; Extractor. Davies, Llanwen, Llanybyther, Carmarthen.

**QUALIFIED;** experienced Manager; Extractor; low salary; view purchase easy terms. "Chemist," 83 Warner Road, Camberwell.

**JUNIOR;** 5½ years' experience; Leeds or district preferred; excellent references. Tungate, Stamford Street, Old Trafford, Manchester.

**APPRENTICE;** youth wishes to be apprenticed to a good-class business; passed Preliminary. "Velox" (259/21), Office of this Paper.

**UNQUALIFIED;** 28; tall; married; first-class Dispensing and Counter experience; good references. Haworth, 62 Upper Hope Place, Liverpool.

**LOCUM-TENENS.**—Chemist (aged 30) now booking engagements; disengaged July 13 to end of September. Apply, "Yates," Rodborough, Stroud, Glos.

**QUALIFIED;** disengaged; experienced; 26; town, country, season berth preferred, but not essential. Apply, H. Schofield, 30 East Marsh Street, Grimsby, Lincs.

**MANAGER or Senior;** qualified; 28; thoroughly competent; experienced Dispenser. "Chemicus," West Lea, Dartmouth Park Avenue, Highgate, London.

**QUALIFIED Chemist,** tall and active, 40, married, seeks permanent situation as Manager or outdoor Assistant in large town. Abraham, Long Sutton, Lincs.

**SCOTSMAN;** well up in all branches; thoroughly competent; good Counterman and Window-dresser; disengaged; outdoors; married. 259/8, Office of this Paper.

**LOCUM,** disengaged; wire or write; first-class experience; tactful Counterman, and thoroughly capable in any capacity; unqualified. "F.," 197 Hoxton Street, London, N.

**JUNIOR (indoors);** 19; passed Preliminary; tall; 2 years' first-class experience; knowledge of Photography; Warwickshire preferred. "Chemicus," Avondale Park Road, Coventry.



# SITUATIONS WANTED—cont.

## RETAIL—continued.

**PART-TIME**; disengaged May 4. "W., 20 Courtney Road, Holloway, N.

**MANAGER**; experienced; qualified. "Aspirin" (260/13), Office of this Paper.

**QUALIFIED**; temporary engagement or Locum. "J., 4 Jewry Street, Winchester.

**QUALIFIED**; first-class experience; disengaged. "Sulphonal" (260/103), Office of this Paper.

**JUNIOR**; 21; good all-round experience; outdoors. Thomas, 9 Ashcroft Road, Cirencester.

**EXPERIENCED Dispenser**; one or two evenings weekly; qualified. Kydd, 18 Lupton Street, N.W.

**PART-TIME** about end of May; student; experienced; what offers? 260/7, Office of this Paper.

**LONDON**.—Assistant; 23; reliable; unqualified; disengaged May 25. Frost, 80 Calabria Road, N.

**MANAGER**, Dispenser, or Locum; 37; qualified; disengaged. "Major," 40 Ertel Road, Reading.

**QUALIFIED**; 28; high-class experience; good references. "Chemist," 24 Victoria Street, Brighton.

**LOCUM**, by day, week, or month; Shop or Hospital. John Pyle, 25 Josephine Avenue, Brixton Hill, S.W.

**PHARMACEUTICAL Chemist**; young; outdoors; abstainer; excellent references. Wills, Southcliffe, Falmouth.

**BRANCH Managership**; permanent; or succession in good business for cash; qualified. 261/24, Office of this Paper.

**DISPENSER**, Bookkeeper; excellent experience; references; abstainer. "H., 86 St. Vincent Street, Portsmouth.

**TEMPORARY**; 23; unqualified; outdoors; good references; disengaged; large town preferred. 258/1, Office of this Paper.

**LOCUM** or permanency; first-class experience; Dispensing, Photography; tall; young. Parker, 48 Fishergate, Preston.

**MANAGER**; qualified; 36; married; good Counterman, etc.; disengaged. "Extractor," 30 Besson Street, New Cross, S.E.

**ASSISTANT**; experienced; Prescriber, Extractor; Photography; Stationery; all-round experience. 259/6, Office of this Paper.

**ASSISTANT**; 23; qualified; 6 years' experience; London or large provincial town preferred. E. P. D. Bush, Melksham, Wilts.

**BRANCH Manager**, Locum, or Assistant; middle-aged; married; references; qualified; permanency. X., 52 North Road, Cardiff.

**AS Assistant**; aged 22; outdoors; disengaged shortly; high-class Dispensing experience. Durrant, 5 Dumbarton Street, Portsmouth.

**ASSISTANT** or Branch; 32; unqualified; abstainer; good references; single; disengaged. Thomas, Preswylia, Dinas Mawddwy, Merioneth.

**MANAGER** or Locum; experienced Prescriber and Extractor; highest references; terms moderate; disengaged. "M.P.S., 24 Fernbank Drive, Bingley, Yorkshire.

**ASSISTANT**; 29; 12 years' general experience; good Stockkeeper, Counterman, and Window-dresser; steady and reliable; disengaged. A. B. Glenlyn, Byron Road, Harrow.

**MANAGER** or Senior; 30; 15 years' experience, including first-class West-end Dispensing, country, seaside, and Photographic; highest references. 260/32, Office of this Paper.

**BRANCH MANAGER**, Locum, Relief Assistant; varied experience, West-end and country; energetic; trustworthy; well recommended; aged 45. 259/30, Office of this Paper.

**EVENING** part-time, 2 or 3 evenings after 5 o'clock, by a gentleman engaged in the West-end; qualified; experienced; reliable. "Salol," 26 Wotton Road, Upper Tooting Park, S.W.

**LOCUM-TENENS**; 6 years' experience and references, all branches and Continental; qualified; disengaged May 22; moderate. T. H. Buswell, Pharmacie Anglo-Francaise, Beaulieu-sur-Mer, France.

**MANAGER**, qualified (33), married, abstainer, reliable and trustworthy; large experience all departments, including buying, seeks permanency in good Mixed country Retail; Midlands preferably. 36, Clarendon, Flixton, Manchester.

**JUNIOR**; Dispenser, Counterman. 260/6, Office of this Paper.

**DOCTOR'S Dispenser**; qualified; experienced; disengaged. 261/ Office of this Paper.

**EVENINGS** or Sunday; qualified; good references. "Alph 31 Albert Road, Ilford.

**DISPENSER** to Doctor; part or whole time; disengaged. "S. 175 Kennington Road, S.E.

**DISPENSER** to medical man or institution; experienced. "A 111 Sugden Road, Clapham Common.

**QUALIFIED** desires Managership or responsible position; Address, 263/8, Office of this Paper.

**UNQUALIFIED**; capable taking charge; good references; engaged. 263/7, Office of this Paper.

**LOCUM-TENENS**; day or week; town or country; highest references. Briggs, 100 Boston Road, Hanwell.

**ASSISTANT** or Manager; unqualified; excellent references; good experience; 30. "Gentian" (261/11), Office of this Paper.

**DISPENSER**; qualified; institution or doctor's; full or part time; 42; excellent references. 260/38, Office of this Paper.

**ENGAGEMENT** sought; experienced; outdoors; disengaged April 27. "Qualified," 13 Trafalgar Square, Chelsea, S.W.

**MANAGER**; qualified; 34; married; good experience; five years present situation; reliable; permanency. 261/2, Office of this Paper.

**SEASIDE**.—Junior (21) requires season's engagement; good-class Dispensing experience; highest references. 262/34, Office of this Paper.

**JUNIOR**; 20; 5 years' experience; outdoors; Manchester or district preferred; excellent references. Apply, 260/93, Office of this Paper.

**DISENGAGED**; 26; qualified; excellent experience; medium height; good appearance and address; outdoors. 261/21, Office of this Paper.

**ASSISTANT**; 24; unqualified; disengaged; 7 years' experience outdoors; medium height; excellent references. Apply, 260/3 Office of this Paper.

**LEEDS District**.—Assistant or Branch Manager; 34; unqualified; 4 years last situation; single; disengaged. Apply "Leeds 261/40, Office of this Paper.

**MANAGER (Branch)**; experienced, capable Extractor, Dispenser, good Prescriber; outdoors; shortly disengaged. "Max 263/9, Office of this Paper.

**RELIABLE Manager** for good-class business; first-class experience; qualified; good references; disengaged; town or country. Stat salary, 261/20, Office of this Paper.

**MANAGER** or Branch; aged 50; quick and steady; qualified; accustomed to good-class modern trade and Photography "Odol" (260/23), Office of this Paper.

**RELIABLE Manager** or Assistant for good-class business; Counter, Dispensing, and Photographic experience; capable Locum abstainer; unqualified. "E., 55 Old Steine, Brighton.

**QUALIFIED**; Manager, Senior, or Locum; middle age; disengaged; exceptional experience; good references; personal interview, if in London. 83 Brookfield Road, Bedford Park, W.

**QUALIFIED Chemist (retired)** undertakes temporary management of good-class Dispensing business by day or week; unimpeachable references. "Liverpool" (262/2), Office of this Paper.

**CONTINENTAL Chemist**; 39; several languages; good appearance; thorough West-end experience; trustworthy; all or part time with doctor, chemist, or institution. Henri, 34 Oakfield Road, N.

**MANAGER**, Locum, or Assistant; qualified; exceptionally good all-round experience; energetic; trustworthy; excellent references to date; disengaged. "Pharmacist," 61 Hayter Road, Brixton, S.W.

**UNQUALIFIED**; single; 37; unique experience, town and country, 19 years; Manager, Assistant, Prescriber, or otherwise; Retail or Wholesale; disengaged; Locum or part time. 263/6, Office of this Paper.

**CHEMIST**, Irish qualification, desires Managership or Assistantship in good English town; Prescriber, Extractor, etc.; tall; good appearance; abstainer; over 12 years' experience; highest testimonials. 260/37, Office of this Paper.

**COMPETENT**, reliable, and steady Assistant, just disengaged, wishes a permanent position, where good services would be appreciated; outdoors; married; unqualified; aged 37; well up in all branches. "Disengaged," 197 Hoxton Street, London, N.



**QUALIFIED**; 23; provinces preferred; good experience. 263/33, Office of this Paper.

**LADY Dispenser**, qualified, desires post; experienced. 33 Notson Road, South Norwood.

**OCUM**; qualified; disengaged; good references. Suoxell, 75 Woodbridge Road, Guildford.

**S Manager, Assistant or Locum**; 40; qualified; married. Burton, 67a Queen's Road, Battersea, S.W.

**UNQUALIFIED**; 23½; tall; disengaged; good references. "Strontium," 105 Southbank Road, Southport.

**SSISTANT**; unqualified; good experience; excellent references. Williams, 2 Park Villas, Tremaine Road, Anerley.

**NIOR**; tall; outdoors; Dispensing, Bookkeeping, and Photography; good experience. 264/3, Office of this Paper.

**OCUM**; aged 28; experienced Prescriber; tall; unqualified; sober; disengaged. "Hustle" (263/27), Office of this Paper.

**SSISTANT**; unqualified; aged 34; height 6 ft.; Photography; good Counterman; disengaged; outdoors. Michell, 12 Trinity Rd, Tooting, S.W.

**OCUM**; qualified; excellent references; booking dates forthcoming holiday season; note new address. Caius, 21a Castleton Road, West Kensington.

**S Manager or Assistant in London**; outdoors; London and provincial experience; good references; middle-aged. Gray, 4 High Road, Wood Green, N.

**UNQUALIFIED**; 23; abstainer; Dispensing, Counter, Photography, Extractor; disengaged; outdoors; Midlands preferred (not essential). "Rhei," 53 St. Thomas's Road, Derby.

**RANCH Manager or Senior**; permanency or part-time; outdoors; disengaged; qualified; experienced; Birmingham district or Midlands preferred. Gaskin, 35 Springfield Road, Moseley, Birmingham.

**VISS (23)**, speaking French, German, and fair English, desires situation; good experience in Continental Dispensing and Photography; highest references; small salary. "Swiss," 8 Fernside Road, Clapham, S.W.

**CHEMIST**; Doctor's Assistant; unqualified; 31; speaking German; 10 years' New York experience; first-class Prescriber, Prescriptionist; good Salesman; competent to take charge; partly preferred. Address, Weil, 11 Gloucester View, Southsea.

## WHOLESALE.

**JNIOR (23)** desires situation in Wholesale; 8 years' Retail experience. Apply "D" (263/36), Office of this Paper.

**SITUATION required**; 10 years' Wholesale and Retail experience; good references; aged 29. 254/32, Office of this Paper.

**REPRESENTATIVE** with 15 years' connection among Chemists is open for engagement. Reply, 256/16, Office of this Paper.

**RAVELLER**; shortly disengaged; Drugs or Perfumery; London connection; excellent references. 259/9, Office of this Paper.

**S Traveller in Scotland**; good connection; steady, reliable; aged 25 years; salary and expenses. 260/1, Office of this Paper.

**AN**; 25; experienced Wholesale Chemists pillmaking, hand or power; Proprietary Medicines; Extractor. 263/21, Office of this Paper.

**OUNG gentleman (29)** desires position with Wholesale Chemical Manufacturers as Representative or Warehouse Foreman. 13, Office of this Paper.

**OUNG man**, strong, energetic, seeks situation in Wholesale Warehouse; 5 years' experience; thorough knowledge of Drugs, "W.", 24 Stoneham Road, Hove.

**WAREHOUSEMAN**: smart man; 32; could assist at wet or dry counter; thorough knowledge of trade, Sundries, etc. R., Wandsworth Road, Clapham, S.W.

**WANTED**, to Represent Specialty or Drug-house on part expenses and commission by representative of first-class London tent house. 258/39, Office of this Paper.

**DO YOU SEE** my last week's advt.? I am seeking a situation in office with view to represent; 23; 6 years' Retail. Write "Energetic" (261/12), Office of this Paper.

**S Representative for Drugs, Chemicals, or Sundries**; Pharmaceutical Chemist; good connection Thames Valley; excellent references. "Bonus," 51 Conduit Street, W.

**REPRESENTATIVE**; Chemists, Doctors, Hospitals, etc.; experienced; good Salesman; tall; 35; good appearance; organising abilities. Camphor, 72 Paulet Road, Camberwell.

**REPRESENTATIVE**, calling on Doctors, etc., Drugs, Medical Sundries, seeks similar position; would introduce specialty or best position of trust. 260/5, Office of this Paper.

**REPRESENTATIVE** desires position, first-class house, Drugs, Instruments, Sundries; connection North England; energetic; excellent references. "Acetum" (260/50), Office of this Paper.

**YOUNG** qualified Chemist wishes to enter Wholesale Laboratory or any department offering good prospects; near London; 8 years' Retail. Write, "Wearside" (258/40), Office of this Paper.

**REPRESENTATIVE** with sound connection South Wales desires engagement South Wales, South-West Coast, and Midlands; Drugs, Specialities, Instruments, etc. "Drugs" (261/33), Office of this Paper.

**SCOTLAND**.—Traveller, young, energetic, 10 years' established connection, Wholesale, Retail Druggists, Medical profession, all Scotland, desires to introduce and represent Drug-house or Speciality; part expenses, commission. 257/14, Office of this Paper.

**TERMINATION** of contract (2 years) seeks advancement; Wholesale Drug, Proprietary; advertising, correspondence, sales; familiar with modern systems; concentration, responsibility, fidelity, grip; 13 years' experience, mostly Retail; would go abroad. 259/22, Office of this Paper.

**SUNDRIES, Specialities, Toilet Preparations, etc.**—Advertiser, thoroughly experienced in these lines, seeks trustworthy position in leading house; young, keen, enterprising, and possessing up-to-date ideas and methods; good references; interview arranged. "Ambitious" (257/37), Office of this Paper.

**TRAVELLER** on Continent; active, energetic; qualified man; experienced in all branches of Drug and Surgical Instrument trade; competent to push a speciality; middle-aged; with an extremely good knowledge of French; can furnish references and supply guarantee if required. Apply, "Continent" (263/22), Office of this Paper.

## MISCELLANEOUS.

**MCADAM & TUCKNISS**, Sharedealers, 30 Tranquil Vale, Blackheath, S.E. Telephone 81 Lee Green.

**SHARES FOR SALE** (free of commission, subject).—25 Camwal Preference, 10s. 4½d.; 100 Ilford Ordinary, 5s. 7½d.; 70 International Sponge 6 per cent. Preference, 16s. 4½d.; 100 J. Knight, 22s. 6d.; 100 Sanitas, 21s. 4½d.; 100 Schweppes Deferred, 7s. 9d. x.d.; 200 A. J. White Ordinary 3s. 4½d., 100 Preference 11s. 10½d.

**WANTED** (subject).—200 Camwal Ordinary, 2s.; 100 Idris "A" Ordinary, 12s.; 200 Southall Bros. & Barclay Preference, 22s. 6d.

List of shares for sale and wanted sent free on application. Bankers: London and County. Established 1898.

## THERE IS A GREAT NEED

—and a constantly growing need—for the services of **SKILLED SIGHT-TESTERS**. Sight-testing thoroughly taught by post by Practising Qualified Optician. Everything taught that will enable you to remedy defective vision. Particulars from

**J. E. Bamister**, Practising Optician, BLOXWICH.

**CHEMISTS' SHOP-FITTINGS (SECOND-HAND)**.—Ranges mahogany drawers, with bevelled-edge glass labels and cut-glass knobs, shelving above, lockers below; mahogany dispensing-screens, counters with glass-case fronts, wall-cases, bent-front and flat-top counter-cases, counter-desks, tooth-brush cases, complete shop-rounds, etc.; every requisite for chemists; extensive stock to select from at extremely low prices; practical men sent to all parts; illustrated catalogues and estimates free. **MATTHEWS, CHEMISTS' FITTER**, 14 and 16 MANCHESTER STREET, LIVERPOOL.

**SECOND-HAND CHEMISTS' FITTINGS**.—We have an exceptionally fine selection of these in all sizes; prices are right and goods are in first-class condition; we shall be pleased to supply particulars and prices. Call or write, **RUDDUCK & CO.**, 262 OLD STREET, LONDON, E.C.

**SECOND-HAND SHOP-FITTINGS**.—10-ft. drug-fitting, with lockers and mahogany fronted drawers, glass labels and knobs, mahogany coverboard and cornice, and mahogany fronted pillars and shelves; 8-ft. mahogany and plate-glass fronted serving-counter; 4-ft. mahogany and plate-glass counter-case; perfume case and desk; 7-ft. mahogany screen, with plate-glass bevelled mirror centre and cases each side; counter under same with plate-glass cases in front; 8-ft. wall-case, opening in front with three glass doors, and fitted inside with shelves; nest of 10 drawers for behind counter; ready for immediate despatch; price, complete, £39 10s. **PHILIP JOSEPHS & SONS**, 93 Old Street, London, E.C.

**CHEMISTS' Complete Fittings for Sale**.—12-ft. drug-fitting, 40 drawers, mirror poison cupboard, shelving; 6-ft. plate-glass dispensing-screen, complete; 10-ft. mahogany plate-glass counter; 5-ft. mahogany bent plate-glass counter-case, perfumery case and desk, all in high-class condition; the lot £45; bargain; cheapest house in the trade for alterations, window-enclosures, dispensing-screens, glass-fronted counters, glass facias, stall-plates; estimates free. **H. Mills, Chemists' Complete Shopfitter, Shop-front Builder, Steam Works**, 163-5 Old Street, London, E.C.



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made with 10, 20, 30 and 40% of salicylic acid or 40% of salicylic acid and 5% of indian hemp extract

in rolls of 5 and 10 yds. by 7" or any size of pieces ready cut and covered with gauze extending beyond all four sides in plain waxed paper bags for chemists own packings, in elegant envelopes and cardboard boxes of various sizes, with chemists name & address for quantities of six doz. & upwards.

**Corn Strap Rings,** made with salicylic acid and extract of indian hemp surpass all similar kind. In elegant cardboard boxes containing six rings.

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Telephone 1917 Tottenham.

## TUITION.

**P**HARMACEUTICAL Chemist and Silver Medallist has Vacancies for several Pupils in Laboratory for MINOR Course. Personal Tuition. Success certain. Three Students presented themselves for April Minor, all passed: Miss CHARLES, Burslem; Miss Fox, Sandbach; Mr. FOLLOWS, Tunstall.

Particulars from **E. GRIFFITHS, Kidsgrove, STAFFS.**

**W**HOLESALERS wanted to sell our Bolic non-poisonous disinfectant in 1d., 2d., 3d., and 6d. bottles; also other packed goods for wholesaling. Write, A. S. Morrish & Co., 108 Duke Street, Liverpool.

TO ASSISTANTS OF THE SOCIETY OF APOTHECARIES (LONDON).

**A**LL holders of the Assistants' Certificate in public or private appointments and not members of the Association of Certificated Dispensers are urgently requested to notify the same at once for statistical purposes, to the Hon. Sec., Mr. A. HOWELL, Dalston Dispensary, N.E.

## WILL CHURCHILL WIN?

is one Manchester topic; but a certain thing is that B. S. won new clients rapidly in that City and district this week. **WHY?** simply because 5 minutes' chat with him will prove that his plan—is the one plan to Business Success—more customers, more profit. Booklet free, visit free, rival chemists not accepted. Every district is to be worked. Shall it be you or him who joins my "happy band," nearly 400 now.

**BERNARD SLACK,** The Original Business Increaser. Tel. No. 255. 96 Hill Top, WEST BROMWICH.



# Exchange Column—Bargains.

## TERMS.

One halfpenny per word with name and address. One penny per word if we register the address and attach a number.  
No Advertisement inserted for less than 6d.

## FOR DISPOSAL.

### APPARATUS.

MULSION machine; small granite roll mill; Carter's disintegrator, all nearly new, for sale cheap. G. HORN, 5 Rounton Road, Bow, London, E.  
O. 1 Baker's sifter and mixer, 10s.; typewriter, £1; 3-gr. (24) pill-machine (handle missing), 5s.; bent counter-case wanted. TORRENS, Youghal.  
SPENSING-SCALES, nearly new, complete, in glass case, sensitive to 1-10th grain; cost over £3; accept 25s. KENDRICK, 133 Oakwood Road, Sparkhill, Birmingham.

### DRUGS AND CHEMICALS.

HAT offers?—3 14-lb. dried chloride of calcium and jars. SHACKLOCK, Chemist, Mansfield.

### PROPRIETARY ARTICLES.

HAT offers?—Dobson's black leg drinks, 2 pcts. at 6s. 6d., 6 pcts. at 3s. 6d., 6 pcts. at 2s. 3d., 6 pcts. at 1s. 6d. SHACKLOCK, Chemist, Mansfield.

### SHARES.

HARES for sale. See p. 169.

### SHOP FITTINGS.

HOP spring-roller blind, 15 ft. 9; also 2 for sitting-room. LOBB, Willesden.  
OR sale at low price (premises coming down), outside lamp on column, several glass cases, 3 window-stands, drawers, etc. KNIGHT, 452 Edgware Road.  
HAT offers?—Two large specie-jars, 33 in. high, in perfect condition; also one outside lamp with bracket, as Maw's list 2795. HENDRY, Chemist, Inverness.  
OR immediate disposal, lease expired, 150 shop-rounds, several glass cases, drawers, etc.; no reasonable offer refused; would be suitable for branch shop. MIDDLETON, 80 Dovecot Street, Stockton-on-Tees.

### MISCELLANEOUS.

WATER-BED, 72 by 30; Squamus galvanic battery; cheap. GWYNNE, Chemist, Liscard.  
FIFTEEN dental forceps, key and 3 elevators, by Weiss, fitted mahogany case; new condition; £4. 44 Nunhead Grove, S.E.  
5 GROSS 1d. Cerate Tins, 50 gross 2d. Grate Polish tins with 3 doz. wood outers; 1s. per gross, or best offer. ASPDEN, 86 Victoria Street, Blackburn.  
HEATROPHONE; 48 concert records (12 small); perfect condition; best offer or willing exchange Minor books in part. HUGHES, 140 Hornsey Road, London, N.  
VERSTOCK.—Cleaver's terebene soap, 8s. 6d. doz. boxes, clean and new; 1898 B.P., 2s. 6d.; "Veterinary Counter Practice," 1s. 6d.; 4-lb. marble slab scales, 7s. FITT, Chemist, Norwich.  
ENTAL show-case, almost new, £2 10s.; Morrison chair, excellent condition, £7 10s.; Allan table, British made, £1 1s.; 1,000 odd diatomics, M and B, 30s. EDWARD SMITH, 25 Leinster Square, Bayswater.  
FERRED.—B.P. ('98), 4s. 3d.; U.S.P. (1890), 8s. 6d.; 2 pill-machines, cuts 18 and 24, 5-gr. each, 5s. 6d.; 18 gross ½-oz. bronze bottle cases, £1, sample free; Johnston's illustrations, Natural Philosophy, Human Anatomy and Physiology, plates 1 and 2, also plate 3, Botany (cost 12s. each), 3s. each; Coleman's nervettes, 9s. doz. DONNELLY, Derby Street, Bolton.

## WANTED.

XTURES.—Wanted, shop wall-fixtures. Send particulars to 176/67, Office of this Paper.  
UTSIDE dental showcase; any shape; with or without specimens. CHEMIST, 1 Broadway, Mortlake.  
OING models for corn cure and tonic; also buyer of patents and check-till. 256/17, Office of this Paper.  
INTMENT mill, in good condition. State make, capacity, and lowest price, 262/5, Office of this Paper.  
LATINUM, iridium, platinum-chloride reduced; prompt remittance. ROWSELL, 11 Crebtor Street, Dnlich.  
HOP-ROUNDS, utensils, fillers' earth, wrappers, labels, surplus stock; suitable small shops. LOBB, Willesden.

MINOR, Major, Chemists' books.—Send prepaid for valuation; cash offers per return. GOWER, Bookseller, Waterloo, Liverpool.

ABOUT 100 shop-rounds, 8 oz. to 30 oz. NM and WM; dispensing-scales and pill-machine; must be cheap. SHACKLETON, 45 Hillary Street, Leeds.

CONSUL, for fixing under counter, to draw aerated water into glass by means of handle; must be in perfect working condition. "PECKHAM" (263/4), Office of this Paper.

OLD Prescriptions.—Pharmacist wishes to purchase genuine autograph physicians' prescriptions; good prices offered; prescriptions for pulverses particularly required. Send specimens and prices to 158/62, Office of this Paper.

## ADDRESSES WANTED.

WANTED, the address of William Milton, late of 3 Hill Terrace, Sutton, Surrey. "X. Z." (173/17), Office of this Paper.

MR. COLES, late of Catford, will hear something to his advantage if he will communicate with "CONFIDENCE" (262/33), Office of this Paper.

## Coming Events.

Notices for insertion under this heading should be received by the Editor on Wednesday of each week.

Friday, April 24.

Society of Chemist-Opticians, St. Bride Institute, Ludgate Circus, London, E.C., at 5.30 P.M. Council-meeting.

Tuesday, April 23.

Midland Pharmaceutical Association, Grand Hotel, Birmingham, at 8 P.M. Annual meeting.

Bradford Chemists' Association, Royal Hotel, Darley Street, at 9 P.M. Smoking-concert.

Wednesday, April 29.

Thames Valley Chemists' Association, Nuthall's Banqueting Hall, Kingston-on-Thames, at 7.15 P.M. Annual dinner. Tickets (6s. each) from Mr. W. H. Peake, Hon. Secretary, 20 The Green, Twickenham.

North Kent Chemists' Association, Royal Victoria and Bull Hotel, Rochester, at 6.30 P.M. Annual dinner, at which Mr. R. Winfrey, M.P., Mr. J. F. Harrington (Vice-President of the Pharmaceutical Society), Mr. Walter Hills (Treasurer of the Pharmaceutical Society), and Mr. W. S. Glyn-Jones (Secretary of the Proprietary Articles Trade Association) will be present. Tickets (5s. each) from Mr. R. Feaver Clarke, Hon. Secretary, 21 High Street, Gravesend. The annual meeting of the Association will be held at 5.15 P.M. on the same day.

Western Chemists' Association, Hotel Tudor, Oxford Street, London, W. Whist-drive. Tickets (2s. 6d. each) from Mr. H. R. Procter, Hon. Secretary, 123 The Grove, Hammersmith, W.

Bournemouth Pharmaceutical Association, Gervis Hall Restaurant. Whist-drive. Tickets (2s. 6d. each) from Mr. W. A. Bingham, Hon. Secretary, Charnminster Road.

Public Dispensers' Association, St. Bride Institute, Ludgate Circus, London, E.C., at 8 P.M. Discussion opened by Mr. H. H. Hewitt on "The Changes likely to Ensur under the Suggested Transfer of Administration from the Local Government Board to the London County Council."

Thursday, April 30.

Chemists' Assistants' Association, 73 Newman Street, London, W., at 9 P.M. Annual general meeting.

Cheltenham Chemists' Association, 5 Promenade, at 9 P.M. Discussion on the Pharmacy Bill.

Barnsley Chemists' Association, Royal Hotel, at 7 P.M. Mr. Jones on "A Pharmacist's Experiences at Mafeking."

North Staffordshire Chemists' Association, Roebuck Hotel, Stoke-on-Trent, at 7 P.M. Business: To consider and decide what action should be taken in regard to the Government Poisons and Pharmacy Bill and the Pharmacy Bill.

Friday, May 1.

Royal Institution of Great Britain, Albemarle Street, Piccadilly, London, W., at 9 P.M. Professor Larmor on "The Scientific Work of Lord Kelvin."



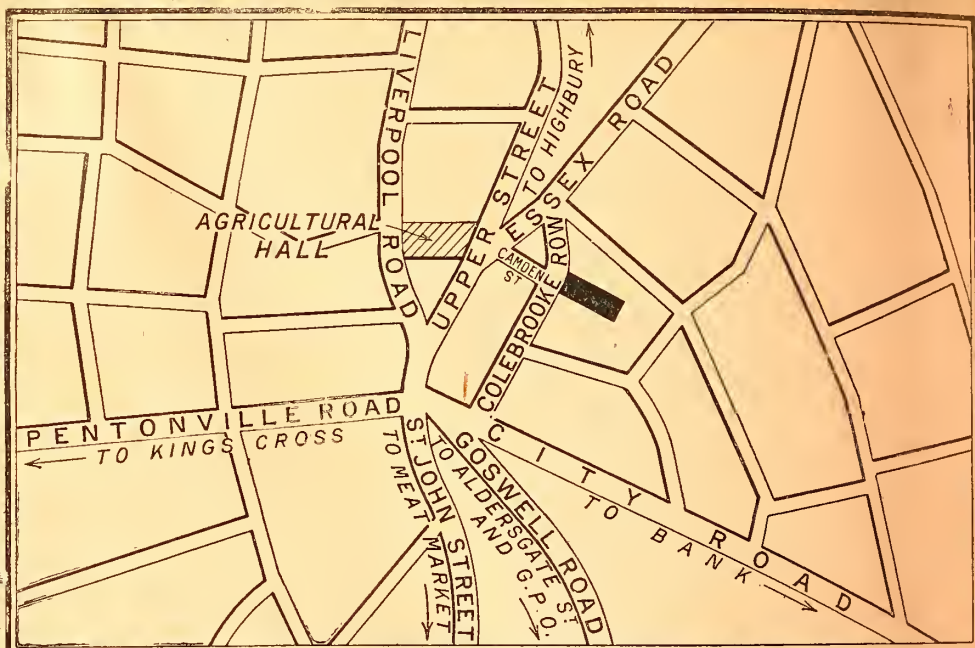
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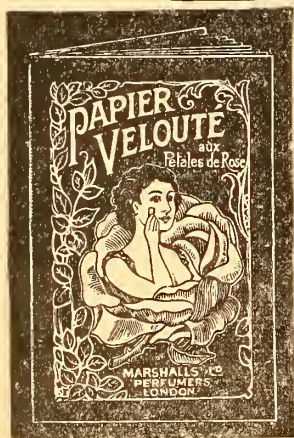


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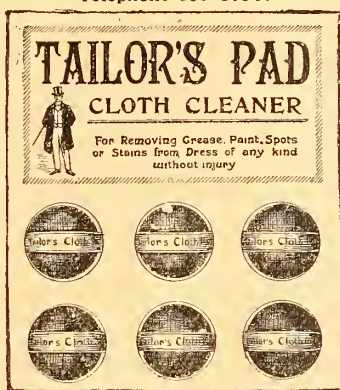


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